

598

CGTTATCAAA CTCATTACCA ATTGAAACAA AAAACGTGGG TTAGAGCCTT TCGGAAATCG	7560
TCAAGCGATT GGAGGAAATG AACTAATCCA CAGTGGCTTA TTCCAAGTAT ACCACTTGGG	7620
CTTTGGCAGT AGCTAACTGC GCTAAATATA ATATAAGGAG AAATAGATGG ATTTATGGTT	7680
TTCTGAAGTT CATACTCCAG ATGTCAAATT GTCTCTGAGA ACAGCCAAGC AACTTTACGC	7740
TGGAAAAAGT GAATGSCAGG AATATCGAAGT CTTCGATACG CCAGCTTTTG GGAAAAATAT	7800
GATTTTAAAT GGCCATGTCT TGTTCCTAGA TGGGGATGAT TTCTCTTACA ATGAAATGAC	7860
CGTTCAGGT CCATGGCTG TCCACCCAAA TCCAAAGAAA GTATTGGTTA TTGGGGGTGG	7920
TGACGGGGGT GTTGGCCAG TATTAAACCT CTATCTGAA CTGGAGCAAA TTGATATTGT	7980
GGAAACCGAT GAGATGTTGG TCGAGGCTCG TCGTGTATAT TTCCGAGCT TTGCTGCAGG	8040
GCTAGATGAT CCTCGTGTTA CCATTTACTA CCAAAATGGG CTACGCTTTT TGGGAAACTG	8100
CGAAGATGAT TACGATATTA TCATCAACGA TGCGACAGAT CCATTTGGCC ATACGGAAGG	8160
ACTCTTTACC AAGGAATCTT ACGGCAATAG TTATCGAGCT CTGAAGGAAG ACGGCATCAT	8220
GATTTACCAG CATGGGAGTC CCTTCTTTGA CGAGGATGAG TCGGCTGCC GAAGCATGCA	8280
CCGCAAGGTC AATCAAGCCT TTCCAATCAG TCGGGTTTAT CAGGCCCATTA TTCCAACTAG	8340
CCCAGCTGCG TATTGGTTGT TTGGATTTCG ATCGAAAAAA TACCACCCCTG TCAAAGATTT	8400
TGACAGAGAA GGCTGGAAAA AACGCCAGCT TTTCACAGAA TACTACTACTG CAACTTACA	8460
CGTGGGAGCC TTATGTTGC CCAAGTATGT TGAGACATT TTAGAAGAAG AGGAAGGAAA	8520
AAAAAGATG GTTTACTAGT TATTGGTTGT GGGGGCGTTG CCCAAGTTGC TATTTCAAAG	8580
ATTTCTCAAG ATAGCGAAAC ATTTACAGAG ATTATGATTG CTAGCCGTAC CAAGTCAAAA	8640
TGCGATGACT TGAAGGAGAA GCTAGAAGG AAAACAAGTA CTAAAAATTG AACTGCAGCA	8700
CTTGATGCTG ACAAGGTTGA AGAAGTGATT GCGCTGATTG AAAGCTACAA ACCAGAAGCT	8760
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GGTGTCTACT ATATCGATAC AGCCCACTAC GAAGCAGAAG ACACAGAAGA CCTGAGTTGG	8880
CGTGTCTACT ACGAAAAAG TTGTAAAGGAA CTTCGTTTTA CAGCCTACTT TGACTACTCA	8940
TGACAGTGGG CTTATCAAGA GAAATTCAAA GAAGCAGGCT TGACTGCTCT TCTTGGTTCT	9000
GGTTTTGACC CAGGTGTAACT TAGTGTCTTT TCAGCTTATG CCCTCAACA CTATTTTGA	9060
GAAATCCATT ATATCGACAT TTATGACTGT AATGGCGGTG ACCACGGTTA TCCATTTGCA	9120
ACCAACTTTA ATCCAGAAAT TAATCTCCGT GAGGTTTCTG CGCCAGGTTT TTAAGTGGAA	9180
GATGGGAAAT GGGTCGAAT CGAAGCTATG TCTATCAAGC GTGAGTATGA TTTCCCTCAA	9240
GTTCGACAAA AAGATATGTA TCTCCTTAC CATGAAGAAA TCGAATCATT GGCCAGGAAC	9300

ATTCCAGGTG	TCAAACGCAT	TCGTTCTTTT	ATGACTTTTG	GTCAATCTTA	CTTGACGCAC	9360
ATGAAATCTC	TTGAAATGT	TGGACTCCTT	CGTACGGATA	CCATTAACTT	TAACGGCCAA	9420
GAAATTGTTC	CAATTCAATT	TTTGAAGGCC	TGCTTCCAG	ATCCTGCCAG	TCTTGGGCCA	9480
CGTACAGTCG	GAAAAACCAA	TATTTGGATGT	ATCTTTACAG	GTGTCAAGA	CGTGTCAAA	9540
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GAAGCTTTGA	ATGAGTATGG	TTTGCCATGG	GTGTGGTTTG	AAAACTCACA	AATGGTGGAC	9780
TAATGAAGTT	AGAACAACTG	CCAAACACAG	CCTATGTTAT	TGACTTGGCC	AAGTTAGAAG	9840
CTAATTGCCG	CATTCTACAA	TATGTACAAG	AAGAGGCCGG	TTGCAAGGTC	TTGCTTGCCC	9900
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CAGCTAGTGG	ACTCTATGAG	GCCAAATTGG	CAAGGGAAGA	ATTTCTTGTT	GAAGTCCATG	10020
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TCAGTGTGGG	TTTGGCGCTC	AACCTCTAGT	GTTCAACTCA	AGGAGATCA	CGCGCTCTAT	10200
GAGCCTTTGTG	CACCAGGFTC	TCGCTTTGGA	GTACTATAG	ACAAGATTCC	GAGTGATTTG	10260
CTAGATTTGG	TTGACGGACT	TCATTTTCAT	ACCCTTTGCG	AGCAGGGAGC	AGATGATTTA	10320
CAAAACAATT	TGAAAGCAGT	AGAAGAACAG	TTTGGTCCCT	ACTTACATGA	GGTAAATG	10380
CTCAATATGG	GTGGTGGTCA	TCATATTACA	AGAGAAGGTT	ACGATGTGGA	TTTGCTGATT	10440
TCAGAAATCA	AGCGTATCCG	AAAAACTTAC	AATCTTGAAA	TCTATATCGA	GCCTGGTGAA	10500
GCCATTGCGC	TTAATGCGGG	TTATTTAGCA	ACTGAGGTAT	TAGATATTGT	AGAAAAACGGT	10560
ATGGAAATCT	TGCTTTTAGA	CCCTCTGCG	ACCTGCCATA	TGCCGTATGT	ACTTGAGATG	10620
CCCTATCTGC	CACCTTTTGA	AAATGGCTTT	GAGTCACAGG	AAAAAGCCCA	TACCTACAGA	10680
CTTCTTCTTA	ATACCTGTCT	GACGGCGGAT	GTGATTGGTG	ATTATAGTTT	TGAAAAATCCA	10740
GTCCAAATCG	GAGACAGACT	TTATTTTCAA	GACATGGCCA	TTTATTCTTT	TGTCAAAAAT	10800
AATACCTTTA	ATGGTATTTG	ATTGCCAAGT	CTCTATCTCA	TGGACGAACA	GGGAGACTGT	10860
AGCTTACTCA	AAGCTTTTGG	CTATCAAGAC	TTTAAAGGGA	GATTATCATG	ATGGACAGTC	10920
CAAAAAAATT	AGGCTATCAC	ATGCCAGCAG	AGTACGAACC	CCATCATGGT	ACCTCATATG	10980
TATGCGCGAC	TCGACACAGA	TCATGGCCTT	TTCAAGGAAA	GGCTGCTAAA	AGAGCATTTA	11040

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CTCAGATTAT	CGAGACCATA	GCAGAAGGGG	AAAGAGTCTA	TCTTTTGGTG	GAGCAGGCCT	11100
ATCTATCTGA	AGCCCAATCC	TATCTTGGAG	ACAAGGTTGT	TATTTTAGAC	ATTCCCAACCA	11160
ATGATGCGTG	GGCGCTGAT	ACTGGGCCAA	CCATCTCTGT	CAATGATAAA	GGTAAGAAAT	11220
TAGCCGTGGA	TTGGCGCTTC	AATGCTTGGG	GAGGCACCTA	TGATGGTCTT	TATCAAGATT	11280
ATGAAGAGGA	TGACCAAGTA	GCCAGTCTGT	TTGCTGAGGC	CTTGGAAGG	CCTGTCTATG	11340
ATGCTAAACC	TTTTGTACTG	GAAGGAGGCG	CAATCCATAG	CGATGGTCAA	GGAACATTTC	11400
TGCTAACTGA	AAGTTGCTTG	CTTAGTCTCTG	GTCGCAATCC	TAACTTGACT	AAAGAGGAGA	11460
TTGAAAACAC	ATTATTAGAA	AGTCTTGGTG	CTGAAAAAGT	TATTTGGCTT	CCTTATGGTA	11520
TTTATCAGGA	TGAACCAAT	GAACAGTCTG	ATAATGTTGC	TGCTTTTGTT	GGTCTGCTG	11580
AGCTTGTITT	GGCTTGGACA	GATGACGAAA	ATGATCCCCA	GTATGCCATG	TCAAAAGCAG	11640
ATCTCGAACT	CTTAGAACAG	GAACAGATG	CAAAAGGTTG	TCACCTCACC	ATTCTATAAT	11700
TGCTATATCC	TGCAGTTCGA	CAAGTTGTGA	CAGAAGAAGA	TTTGCCAGGC	TACATCTATG	11760
AAGAAGGAGA	AGAAAAGCGA	TACGCAAGTG	AACGACTAGC	AGCTTCTTAC	GTAAACTTTT	11820
ATATCGCCAA	CAAGGCTGTC	TTGTTTCCAC	AGTTTGAGGA	TGTAAACGAC	CAAGTGGCCT	11880
TAGATATCCT	CAGCAAGTGT	TTCCCAGACC	GTAAAGTTGT	CGGATACCA	GCCAGAGATA	11940
TTCTCTTAGG	TGCTGGCAAT	ATCCACTGTA	TCACCCCAACA	AATTCCAGAA	TAGGAGAAAA	12000
AGATGAGAAA	TGTAAGAGTT	GCAACCATTC	AGATGCATG	CGCTAAGGAT	GTGCAACCAA	12060
ATATCCAAAC	CGCAGAGCCT	TTAGTAGCTC	AGGCTGCTGA	GCAAGGAGCC	CAAAATTATC	12120
TCCTGCCCGA	GTTGTTTGAA	CATCCCTATT	TCTGTCAAGG	ACGTCAGTAT	GACTACTACC	12180
AGTATGCCCA	ATCTGTAGCG	GAATACTACTG	CCATTACGCA	TTTTAAGGTG	ATTGCTAAAG	12240
AACTACAAGT	TGTTTTACCA	ATCAGTTTCT	ATGAAAAAGA	TGTAATATGC	TTGTATAACT	12300
CTATTGCCGT	CATTGATGCA	GATGGGGAAG	TGCTGGGCGT	TTATCGAAG	ACCCATATAC	12360
CAGATGACCA	TTATTATCAA	GAATAATTCT	ATTTCACGCC	TGTAACACT	GGTTTCAAGG	12420
TCGTGAATAC	TGCTATGCT	AAGATTGGTA	TGCTATCTATG	TTGGGATCAA	TGTTCCCTG	12480
AAACAGCGCG	CTGTCTTGCA	TTGAATGGTG	CTGAATTGCT	CTTTTATCCT	ACAGCTATCG	12540
GTTCAGAGCC	GAATTTGGAT	ACAGATAGTT	GTGGTCACTG	GCAACGTACT	ATGCAAGGGC	12600
AGCAGCAGC	GAATATTGTT	CCAGTCACTG	CAGCCATCG	TTATGTTTGA	GAGGAGGTTA	12660
CTCCTAGTGA	GGAAAATGSC	GGACAGAGCT	CCAGTCTTGA	CTTCTACGGT	TCCTCCTTTA	12720
TGACGGATGA	AACAGGAGCT	ATTCTAGAAC	GAGCTGAAAG	ACAAGAAGAA	GCTGTCTCTG	12780
TAGCTACTTA	TGACCTAGAC	AAGGGAGCAA	GTGAACGCCT	AAACTGGGGC	TTGTTTCGAG	12840

ATAGAAGACC	AGAAATGTAT	AGACAAATTA	CAGATTAGTG	TGGGAGAAAT	GAGAGATTCA	12900
TTCTGCTAGA	CTAACTTCTT	ATTAGTAAC	ATAAGATACT	ATGGCATCTA	GTAAATCGAT	12960
TTTTATGATT	GCCTATTCTT	GTCTATTGAT	TAGTCGGTAT	TTTAAATAT	TAGCAAAAAA	13020
GC AAAATGCA	GTAACCTCTG	TCTATTGCT	TTTCTTTT	ATAGAATATA	TTTCTCAATA	13080
GCACGGCACA	CGCCGCTCTC	TTCTGCTT	GAGGTAAACG	CATCCGCAAG	AGATTTGATA	13140
TAATCGCTGG	CATTTCCTAT	TGCAATCCCA	AGCCCTGCAA	ACTGGAGCAT	TTGATATCG	13200
TTATTAGCAT	CGCCCATGGC	CATTAATCTCT	AGGAATCAA	TCTTCAAAAT	CTCAGCTAGT	13260
CGTGAAGAG	CAGTAGCCTT	TGTGCTTCCA	AGCGCATTG	CTTCATAAAT	GACAGCCTGC	13320
GAACGAACCT	CACCTGAATCG	TTGGCAAAGC	TCTTCAGCAA	AACGCTGCTC	AAAATCGTCT	13380
GTTTGTTCTT	TTGTTCCATA	ACACATACCT	TGGAACATCC	GGAACTTTCC	ACTAGTCGCT	13440
TCTTCAGAG	AAATTTCTAGT	CAGGCTCGAA	AACTACTATT	TAGCATCAAT	TTCAATTAAT	13500
TGATTGGGCT	TGTCACCGAG	AACAAAATAA	TGTCACCTGT	CAAAAAGTGT	CAACTGAACA	13560
TCACCTCTTT	CAGCAAGGTC	ATAGAGGTAT	TGATGTCTAG	CTGGACTCAG	TTCTTTCCAG	13620
TCAACTAGAC	TCCAACTACT	GGTCTGGTGA	GTTGAACAAC	CGTTGTTAAC	AATAATATAT	13680
TGCTTCTTGA	GCTCAAGCTC	CAGTTTCTTG	TAGTAGGGGA	GGACACCGAA	AAGGGGGCGA	13740
CCCGTAGACA	GAACCAAGTT	GACACCTTTT	TCAATGGCTT	TGTGAATAGC	ACTAATGTGT	13800
GCTTGTTGGA	TTTCTTTGGC	TTCAATTGAGG	AGGCTGCCGT	CCATATCCAA	GGCTAGTAGT	13860
TTAATCATAG	GTCCTCTCTCT	TTATCTTTGC	TATTATTATA	GCATATTTTG	GAGAGAAAT	13920
TGATAGAAAAG	CTTGAGACTA	ATTGATTTTA	TAGTTTAAGA	TGTTTGTATG	ACAATTCATG	13980
ATTTGAAGAG	GATATTTCGC	AAAGATATGC	TATACTATGT	TGTCATATGT	TGCAACTAGA	14040
CAAAATAAAA	AACCAACTTA	ATATAATAGT	TTTTTTGTAA	GTAGGTATGA	GTAGCAGATT	14100
ACTCAACTAA	CTGAAGAAAT	AATGGAGGAA	ATATATCATG	ATTTTAAATGA	CAAAAAATAT	14160
AAATCTAACA	AATGAAGAAAT	TAGAGCTGAT	ACAGGTGGA	GCAGATCCAT	ATGGTAAAJA	14220
TCCTAATGTG	AGGTACGATT	GGGAAATAGA	ACCAGTATTA	ACTCTGCTGG	TTCATGGATT	14280
TTGTCCAGAG	GGCACCCTATG	ACTCAGGATA	TATTTGGAGGA	GGTAATCATC	TTTGCAGAG	14340
AAGTCTGCG	AGATTTTAAG	TAAAAATTTAT	TAGGAATATG	AAGAAACAG	GGGAGAAAC	14400
AGAGGAGTTA	ATATGAAAAA	ACGAGCTATT	CAAAATTTTAC	TAGCAATTTG	CTTAATTTTT	14460
TACAAATCAA	CTTGGTTTTG	GAGGCTTTTC	AATTATCTCG	CAAAAGCCCTA	TCTACACGCA	14520
AGTCGTGAAT	TTTTTCAGAT	TCTGCTTTTG	ATGGAGAGCG	GAGTCTTTTT	CTTAGCGGTG	14580

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ATCTATCTAC TGGTTTTGC AGGAAAGAA ATTTTTCATT TCAAGTGGA GCTGAGGTAC	14640
TTCAATCTACC TTTTACTGGG CTACATCATT TCATATATGT CTGACTTCCT CTTTTCGTAT	14700
TTCAATATCCC TGCTCTCAA TCAGATTTCCT TTGAATGAAA CGGTAGAAAT GATGGGGAGA	14760
CAGGAGTTCC CTTATGCTTT GCTCATCGTT TGCTTCATCG CCCCTATTGC TGAGGAATTG	14820
ATTTATCGAG GtGTGCTTAT GACAACCTGT TGCAAAAACT CACCTTGGTA CG	14872

(2) INFORMATION FOR SEQ ID NO: 73:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10223 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGTATCG GTCTCAAAAC CAATCTGGTC GCTATGGTCA AATCCAGTGG GAAAATCCAT	60
TCTTCTTGA GCCATCTGCT GGATTGCCAT CATCCTCAAC ACTCTTGGTA TGCAGACCTT	120
TATCGGCATT TTCTAATACT CTTGGAAAA CTCTTCAAA CACGTCAACG TCGCCTTGCC	180
GTAGGTATAT GTTACTGACT TCGTCAGTTC TATCTGCAAC CTCAAAACGG TGTTTGAGCT	240
GACTTCGTCA GTTCTATCTG CAACCTCAAA ACGGTGTTTT GAGCTGACTT CGTCAGTCTG	300
ATCTACAACC TCAAAACAGT GTTTTGAGCT GACTTCGTCA GTTCTATCTG CAACCTCAAA	360
ACAGTGTTTT GAGCAGCCCG TGGCTAGTTT CCTAGTTTGC TCTTTGATTT TCATTGAGTA	420
TAACACAAAA GGTAGCCCAT CAGCTACCTT TTTCTTATGC TTCTCAATC AAGCGAGTAT	480
GTTCTCTCTT GATACAGCGA TTCATCACGA TATCATCACA TCCACCATCA CGCAAAATCT	540
CTTTCGCTTC TAAACTTTCA AGTCCTAGCT GTGCCAAAA AATCTTGGA TCAGCTTTGA	600
GAAAATCACG CGCCACATCG GGCAGAAAT CACTGCGACG ATAAACATTG ACAATATCTA	660
CAGGAAAGG AATTTCAGCG AGGCTAGCAT AAGCCTTTTC ACCCAAGATT TCGCCACCTG	720
CCGCCTTGGG ATTGACTGGG ATGATTTTAT AGCCCCGAGC CTGCATTTC TTTGTTACTC	780
GATTGCTGGT TGTTTCTTCA CGGTACAGCA AACCACCAAC AGCAAGGGTT TTAATCGTTG	840
CGAGATACTG ACGAATCACG CCATCACTTG GATTGATAAA TTCTTGACTC ATAGAAATCC	900
TCCTTTTTC TCAGTATAGC ACATTTTGAA AAGGTTTGCA GAATTATACT ACAAAAAAGG	960
AGGACTAGCC CCCTTTTTAT TTAGCCTCGT ACCAGCTTGC CCCTTCATTC TCATCTGCGA	1020
TAAGAGGAAC ACTGAGTTGA ATGGCTCTCT CCATGGTTTG TTTCACCAAT TTTTTCATCT	1080
CTACCAATTC AGATTTAGGC ACTTCAAGCA CGATTTTCATC GTGCACTTGT AACGACATCT	1140

TAGTCTGATA ACCACCTGCA ACCAAGGCTT TATCCAGCTG AATCATGGCA ATCTTGAGAA	1200
TATCTGCTCG CGAACCCTGG ATAGGTGAGT TGATAGCAGT TCGCTCCGCA AAACCACGAA	1250
TATTGAAGTT GCGCGAATTG ATATCTGGCA ACTCACGGCG ACGCTTAAAG AGGGTCTCTA	1320
CATAGCCCTT ATCACGCGCC TCCCGCACCA CTTCATCCAT GTAGTTTTTA ATACCTGGAA	1380
AACGTTCAAA GTAGGTATCA ATGTAGGCTT TGGCTTCCTT ACGACTAAT CCCAAATAT	1440
TAGACAAGCC AAAGTCTGAA ATCCCATAAA CCACTCCAAA GTTAACCTGCC TTGGCATTGC	1500
GACGGTCTGT TGCAGTCACA TCATCAGGAC GCTCAATGCC AAAGACCCGC ATGGCTGTGG	1560
AAGTATGGAT ATCTGCCCCC TCTTGGGAAG CCTTAATCAA GTGCTCATCC TTAGAAATAT	1620
GCGCCAAAAC GCGCAATTCA ATCTGTGAAT AGTCAGAGCT GAGTAGCACA CTATCCTCCC	1680
ACTCTGGCAC AAAAGCCTTC CGAATCAAGC GCCCCTGTTT CAATCGGGCA GGAATATTTT	1740
GCAAGTTTGG ATCCACACTA GACAAACGCC CGGTCTGGGT CAAATCCTGC ACATAGCGAG	1800
TATGAATCTT TCCATCAGCC AAAATCCAGT CCTGCAAGCC AATTACATAA GTAGATTGAA	1860
TCTTAGCAAT TTGACGGTAA TCCAGGATTT TCTTAACAAT CGAGCAATA GGAGCGAGAC	1920
GCTCTAAAAC ATCCACTGCT GTCGAATAAC CTGTCTTGCT TTTCTTAGTG TATTTAGAG	1980
GAAGTCCCAA TTTCTCAAGG AGAAGCAGCG CCAACTGCTT AGCGGAGTTG ACATTAACAT	2040
CCTCACCAGC CAGCTCGTAA ATCTCTTGAG TCAGTTTTTC AATGACAAGC TCATTTTCAG	2100
CCTGCATCTC AAGCAAGGTC TCTTTCTTGA CCATAATCCC AGCAATTTC ATCTGGGCAA	2160
GGACAAAAGC CAGAGGTTGC TCCATATCAT AAGAAGCTC TAATTGCCCC TTTTCGCTGA	2220
GTTTTTCAAG TAAATAGGC TCTGTTTCTA CAAAACAGC AAGTTTACAA GCTAAGTGTT	2280
CCAGAATTT CTCACGTTCA GGAATGGCCT TTTTAACACC CTTACGGTAG AAAGTTTCAT	2340
CATCAACCAA GTAAAGTCTGA CCATAAAGC TAGCGATGGT CGCAATTTCA TTGTCTTCCA	2400
CAGTCGAAAG GAGGTATTTA GCCAAACGGA TGTCAAAAGC AGCGCGCTGC AAATCCACAC	2460
CAAAACGTTG CAAAGAACT TTAACCTTCT TAAAGTCATA AACTCTCAGA GATGTTTTTT	2520
CTAAGAAATC CTTGAAAATC GGGTCTTGCA ACAGCTCAAG CTGTCTCTGT GCATAGAGCT	2580
TATCCCCACA AGACCAGACA AATCCAACCA AATTATCGGT ATGGTAATTC TCACCAAAA	2640
GCTCAAAAGT GAGATAGAC TCTTCACTCA GCATATCTTG ACTGATTTGG TCAACAATAG	2700
TAAATCCAA ACTCTCAGAC ACATCAGCTG ACGACACATT TAAAGCCTGC TTTAGCTGTT	2760
TGAAGCCCAT CTATCTGTAG AATTGCCCAA GATTTTCAAC ATCTGCAGCA CTATAGACCA	2820
AGTCCTTCAA ACCAATCGCA ATCGGTGCTT TGGTATCAAT GGTGCTAGT GTTTTAGACA	2880

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AAAAGGCTG TTTCTGTCA TTGATGAGAT TTTCCTTCAT CTTAGAAGTC TTCAITTCAT	2940
CAATATTTC ATAAATCCCC TCAAGGGAAC CATGCTCCAG CAAGAGCTTA ATACCCTGCT	3000
TTTCACCGAC TTGTGTCACC CCAGGGATAT TATCCGACTT ATCAACCATG AGCGCCTTGA	3060
GATCGATAAA CTGAGCTGGT GTGAGGGCCA TTTCTTCCAT GAGGTAACTG GGCGTAAAGG	3120
CCTCAAACTC AGCCACACCT TTCTTGGAAA TTTCACACAC CGTATGCTCA TCGCTCAGCT	3180
GAATCAAACT CTGTGCCCA CTGACAAATG TAATATCAAA ACCATCTGTC TCTGCTAGCT	3240
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CCATATGATC CAGCAACTCA CGAATGAAG GAAATTGCTC ACGAACTCA TCAGGAGTCT	3360
TGGCCGACC ACCCTATATG TCCGCATACA TCTCTGTCCG GAAGTCTGTC TTTCCCGCAT	3420
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GAATACCATC AATCGCATTG GTATGCAAA CAGCCACATT CTTAAACGG TCCAACTGCT	3540
GATACAGGCG AAAAAAGCC CGAAAGCTA CAGAAGACC ATCAATCAAT AATAATTTT	3600
TCTTATCCAT ACACCCATTA TAAAGGAAG AATCAAAAA TACCATTTGG AAGAGCTAGA	3660
GCAAGTATTT TTCAAACTTT TTCCGAATAA ATAGATAGAG CCAGAGAAAT TAGTAACCT	3720
AGATTTAAAA ATGTGCTATA ATATAGTATA TTGAATCTAT AATAGTACAC CTGACTGCT	3780
AAAATATTTT TATAAATTAA TTGACTTTC CTGATAGAGT TATTCACTC TTATTTCAAC	3840
TCACATAGA AGGAGGAATA GGAGGATCT CAGACATCC GGCACTAGCC CAACTAATGA	3900
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GCTGGCAATT CCAGCAAAAA ATGTGACCAT TTGGAGGGA AGGATATTC ACGTATTACT	4020
CTCCATGCTT TACTCGGTGC AGGATTTTAA TACCAGTATA GACGCTTGG CGGAGTTGA	4080
TACCGGTACT CAAGTAATTA TTGAGATTCA AGTCCATCAT CAGAAATTTT TCATCAATCA	4140
CTGTGGGCTT TACTCTGTGA GTCAAGTTAA TCAAACTTT GAAAAATTC GTCAGCGAGA	4200
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TAGTAATTTT TTCTCAGATG ACCTGGCTTT TCATAGCTTT AGTATGCGCG AAGACACAAC	4320
AGGTGAGGTA TTGGCGATTA CCAACAATGG ACAGGAAAC CATCTGGTTA AGATGGCATT	4380
CTTGGAAATTA AAAAATACAG AGAAACACAG AAAGCAAGG TTGCAAGCC ATGCTGGAG	4440
TTTTTCGGCA ACAAGCCCTT TACCCAGCAA CCGCAACGAG CCAATACCCA AGCAAAATCAA	4500
CTGCTGGACT ACAAGAGCTG GTCCGAGGAG GACAGGAAAA TGTTTAGTCA ACTACATATG	4560
CGAGAGAAC AAGTCTGTTT AGCACAGGAC TATGCTTGG AAATCGCTAG GGCTGAAGGC	4620
CTTGAAACAG GACTAGAGCG TGGAAAGTT GAAGGAAGGG CAGAAAGGAA ACTTTTGGCC	4680

TTCTAGACA	TAGTAGCCCA	AGGTCTCTG	ACTTCTGAGG	TTGCCAGCCA	GCAATTAGGT	4740
ATGTCAGTAT	CTGAATTTGA	GGCACTGTG	TAAUATGGCT	CCATAATATC	CATAGTGGGT	4800
AAATCCCTTA	TGGATATTAT	GGAGCCTATT	TTGTGTAGAA	AAAAAGTCCC	ATATGACCTA	4860
TAATGAAAAG	CGACAAAACA	ACTCATFAGA	AGAATCATA	TGGAACAATP	ACATTTTATC	4920
ACAAAAATTAC	TAGACATTAA	AGACCCTAAT	GTCCAGATTT	TAAACATCAT	CAATAAGGAT	4980
ACACACAAGG	AAATCATCGC	CAAACTGGAC	TACGACGCCC	CATCTTGCCC	TGAGTGGGGA	5040
AACCAATTGA	AGAAATATGA	CTTTCAAAAA	CCTTCTAAAA	TTCCATTATCT	TGAAACGACT	5100
GGTATGCCTA	CAAGAAATCT	CCTTAGAAAAG	CGTCGATTCA	AGTGCTATCA	CTGPTCAAAA	5160
ATGATGCTCG	CTGAAACTTC	TGATGACGTA	CAGTCATATT	TCTTCTCTTT	TTATATATATC	5220
ACAGTTTAA	ATCTAGCTTT	ACTAGATTCA	CGGCTACTAT	CTATTATTTC	GGAAAAAAGA	5280
CGAAAAAAC	TGAGAAATCAT	CTCAGGCTTG	GTCAATTAAT	TTTTTTCTCA	ATATCGAAAA	5340
GTGGAGAAAG	TGGTGGTTTT	TCAATGAAATC	GTACGATAGC	ATCCCTTAGG	AGATGAGCGA	5400
TTGAAATCTG	CTCAATCTTA	TCAATCAAA	GCTCTCTG	CAGATAGATG	GTATCCAAAA	5460
CAACCAATTT	CTTAATAGCT	GATTTTTGGA	TATTTGTCGT	AGCAGACCA	GAAAGAATCTG	5520
GGTGGCTACA	GGTTGCATAG	ACTTCAACAG	CACCAGCTTC	CGCAAGAGCA	TCTGCCGCAT	5580
GACAAATCGT	TCCAGGGTA	TCAATCATAT	CATCAATCAA	GATACAAGTC	TTGCCTTCAA	5640
CTTACCGAT	GATATTTCATA	ACTTCACTAG	TATTCATCTT	ATCAACGCTA	CGACGTTTAT	5700
CAATAATAGC	GATAGATGTT	TTCAAAAAAT	CTGCCAACTP	ACGAGCACGA	GTCAACCTTC	5760
CATGGTCCGG	GCTGACAACC	ACATAGTCA	AACCAACCAT	ACCACGACGC	TCAAAATAAT	5820
CTGCAATCAG	AGGAGCACCC	ATCAAAATGAT	CCACAAGAAAT	ATCAAGAAAT	CCTTGAATTT	5880
GGCAGCAGTG	CAAGTCGATG	GTCAATPAAC	GATCCACTCC	AGCTACTTCA	AGCATATTTG	5940
CGACAAGTTT	TGAAGTGATT	GGCTCACGGC	CTCTGGCTTT	TCTATCCTGA	CGTGCAATACC	6000
CATAGTAAGG	CATGACAACA	TTGACAGATT	CTGCACTCGC	AGCGTTCAAA	GCATCTACCA	6060
TAATCAAAAT	TTCAAGCAGA	TTGTCAATTTA	CAGGCGAACT	AGTTGATTGT	AAGATAAAGA	6120
CGTGTTTCCC	ACGGATTGAT	TCTTCAATGT	TGACCTGAAT	CTCTCCATCT	GAAAAATTGC	6180
GAACACTTGA	TTTCCCCAAC	TCTATCCCAA	TCTCCTGGCG	CACAGCTTCT	GCCAAATCTT	6240
TATTAGAAGA	AAGGGCAAC	AGCTTTAAAT	CAGAAAAAGA	CATGATTTCC	TCCGTATAT	6300
ATGTAATACT	TGTGCTTTTC	ACAAGATTTT	CCATCTACCA	TTGTAGCGCT	TTTTGCACTA	6360
TTTTTCAATC	AAAAATAAAA	GAAGGGCAC	ATATTGTATC	CCTTGACATCA	TTCTTTTGAA	6420

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AAATATTCTA	GGTCATCAAC	TCATTGTGTT	TCTCAACAAA	GCAATAAGCA	TGATAAAAAAC	5480
CATAGAGAGC	AATAGCCGTA	ACCACTGGAA	TGCTAAAAG	CAACTCTGTT	TCCAACTCCA	5540
CAAAAGGAGA	GTTAAACBAG	AAGTGAGTTC	CCAAGGCTAA	ACCTAGAAAA	ATAAGGCCCT	5600
GTTTCTTGCC	AACCTTCTGT	CCTTTATAGG	CTCTGTAAAG	CAAGTAAACA	CCTACTACAG	5660
CTAGACCTGA	AAAAGTCGAG	TGAGAGGCCAA	TTCCTGAGAT	GATACGCTCT	AAAATTGCGG	5720
AAATAGTAAA	GTCAAAGCCC	TCTGGCAAA	CGTACGAAT	ATAACCAATA	TCTTAAATCA	5780
TTTGGAAATC	CAAAACGGAA	GCAATTCCAA	GTAACAAACA	AGATTTTAAT	TTTCGCACAG	5840
GAATCAAAGC	CAAAACAAAA	ACAAGTGACA	ATAATTTCAA	GGGTTCTCTT	ACCAAAGGAG	5900
CGCAATAGC	ACTTTCAAAG	GCAATTTAAA	ATGGACTATC	TGGGAAAGA	ACCCCCAGTA	5960
AATCATGGAT	ATAAGTATTA	GCAAAACTAG	ACAACGAGCC	TGAAGGAAC	ATCCCTCCCA	7020
ATAAAGACAG	AATCAAAACC	TTCTTTGGCA	ATTCCTCATTT	TCCCAATAC	GGAAGAGAAA	7080
ATAAAGAGCC	GGAATCATGT	AAAAGAGAGC	TAGAAAGATA	GAAACTCCCA	TTAGTCCATA	7140
TTCCGCACCT	GACCTCGAAC	CGTCCGTATA	GTAGATGGTT	TCATACTGTA	AACCAATACA	7200
TAGCAATAAA	ATAAAATATA	ATAAAATATT	GCTTTTCTTC	ATACACTTTC	TTTCTAAATG	7260
AAGTATTTAT	AATTCTACGA	CTGTCTACT	TCTGTATCA	ACATTGTAAA	TGGCACCAGA	7320
GATAATGACA	TGCTCTGGTA	TTAGGGGAGA	CTCGATAAGC	AGTTGCATAT	CCTCGCGTAC	7380
ACTCTCTTCT	ATATCTTGGA	AGGGCAAGAA	GTCTGGTCT	GACACATCGA	CAOCCAAATC	7440
TTCTCTCAAA	TACTCCTGAA	AAGTTTCATT	TTCAAAAGTC	TGAGCACACC	AGTCTGTATG	7500
ATGCAATACC	ACAATTTCTC	TTGTCCCAT	TTGTGTCTGG	GAAATAACTA	GAGAACGAAT	7560
CATATCCTCA	GTCACCTGAC	CACCTGCATT	CGCAAAATA	TGAGCATCCC	CAAGTGCCAA	7620
ACCTAGAGCT	TGCGCAACGT	GCAACCTGA	GTCCATACAG	GTCACAATGG	CTACTCTGGT	7680
TTTAGGTTTA	AGTGGCAGAT	TTAACTGCCC	ATGTAGGGCA	ACATAAGCCT	GATTGGCTTG	7740
CATAAATGTT	TCAAAATACG	ACACGATTCC	CTCCTTGAAA	ATTTGATAGT	CAAATATTTC	7800
TCCATCTTTA	TCATTTTTAA	GAGAATTTGT	CACGGATTAT	GCAAGACCT	TTTTCAAGAC	7860
TTCTCTGAAT	GTTCTCACCC	CAATGACCTG	AATTTCTCTTA	GGCAGAGTGA	TTCTCTGCTAA	7920
GGAATTCCTA	GGTACATAAA	TCTTAGTAAA	GCCCAGTTTA	GCAGCTTCGT	TGATGCGTTG	7980
CTCAATACGA	TTCAAGCGCC	GAATCTCTCC	TGTCAGGCC	AGTTCTCGA	CAAAACATTC	8040
CTGAGGATTA	GTTGGCTTGT	CTTTGTAGCT	CGAAGCAATA	GCAACTGCAA	CAGCCAAATC	8100
AATCGCAGGT	TCATCCAAAT	TAACACCACC	AGCAGATTGG	AGATAGGCAT	CCTGATTTTG	8160
CAAGAGAAGC	CCTGCCCGTT	TTTCCAAAAAC	AGCCATAATC	AAGCTAGCAC	GGTTAAAAATC	8220

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AAGTCTGTGC	GTAGTAGGCT	TGGCATTTC	AAACATGGTC	GGTGTACCA	AAGCTGAAC	8280
CTCGGCCAAA	ATCGGACGG	TCCCTTCCAT	GGTTACACG	ATGGAGGAC	CAGTCGCCCC	8340
ATCCAAAGC	TCTTCTAGGA	AAACTTGACT	GGGATTGAGT	ACCTCAACCA	AGCGGCCGA	8400
CTGCATCTCA	AAATCCCAA	TCTCATAGT	GGAAACAAA	CGATTTTGA	CGCTCTCAA	8460
AATAGCAAG	GTGTGGTGAC	GCTCCCTTC	AAAGTAAAG	ACCGTATCCA	CCATATGCTC	8520
CAACATACGA	GGCCAGCCA	AGGTTCTTC	TTTGGTCACA	TGACCTACGA	TAAAGATGC	8580
AATGTTATTG	GTCTTGCCA	ACTGCATGAG	TTCAAGGGTC	ACTTCAACCA	CTGAGAAAC	8640
AGACCCCTGC	ACCCCTGAAA	TCTCAGAGA	CATGATGGTC	TGGATGGAAT	CAATAATGAG	8700
AAAGTCGAC	TGGATACGCT	CCACTTCTGC	ACGAACACTC	TGCATATTGG	TCTCTGCATA	8760
GAGATAAAG	TCACTATCAA	TATCACTCAA	GGCTCTGCA	CGTAGTTTAA	TCTGCTGGGC	8820
AGACTCTCC	CCACTGACAT	AGAGAACTGT	CCCCACTTGG	GACAACTGGG	TTGAGACTTG	8880
TAGGAGAGA	GTGATTTC	CAATCCAGG	ATCCCCACCG	ATAAGACGA	GACTTCTTGG	8940
TACCACTCCG	CCTCAAGCA	CACGGTTGAA	TTCTCTCATC	TCCGCTTGG	TTGATTGAC	9000
ATTGATGGAA	GTCACTCAG	CTAGTTTCAT	GGGCTTGGTT	TTCTCACTGG	TCAAGGACAC	9060
ACGGCATTC	TTAAGTCCG	CAACCTCAAC	CTCTTCCACA	AAAGAGAGAC	AAGACCCACA	9120
GTGGGGCAA	CGTCCAGAT	ATTAGGGGA	ATTATACCCA	CAATTTTGAC	ATACAAATGT	9180
CGCTTTTTTC	TTTGGGATGA	CAAACTCTCT	TCTATATCTC	TAACTCACAC	TCAATCACTT	9240
GGCAAAATC	AATCTCTCA	TTTGGCACAA	ACTGGGOCAT	GAGCATTCGA	TGAGCAACAA	9300
CTACCACAGT	CTGATGTTCT	CGTACTTAG	ACATACATTC	TAGAAACCGA	GACTTCATTT	9360
CGTAGCTGT	CTCATATTGA	ATAGGACTAT	TAGGAAGCAA	CTCCCTCTGC	TTTTCTAAAA	9420
ACAGTCTTCT	AGCTGTTTCA	AAGTTTCTTA	TTCTGTTTT	ATAGACCTGC	CATTGATGTA	9480
ATAAGGCTC	TACTCTTAAA	GGAGACCCG	TAGCAAGAG	CACATACGAA	GGCTTTCTA	9540
AAGCTCTGT	GACTGCAGAA	GATACGATTA	TTTCACTGA	CGAGAGTAAA	GGATTTTTC	9600
TCAATTTCTG	GACTTGCTGC	CGTCCCATCT	CAGACAAAGG	TGCCAAATCT	ATCCCAATC	9660
CTATATAGA	ACGCTCTCT	AACTCAAGGT	AATCTGGCTC	CCCATGACGT	ACAAGATTA	9720
TCTTCATCT	AGTGCCTGT	CGATCCAAAT	CCACCAATTC	GAACGCCATC	AGCTGCATCT	9780
CCATCTGCAA	TTAAGAAAGT	AGCAAAACA	GCTGGACAA	TACGCTCCCC	AACTCAAGA	9840
ACAACCTCTT	GCTCTGTGAT	ATTCTTCATC	TGCGCAAAAA	TATGCCCTTC	ATTTCCAGGA	9900
TTTCCATAAT	AATCCCATC	AATGACTCCA	ACTGAGTTAA	TTAAACCAA	GCCCTCTCTA	9960

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CGAGGATTTC	AAGAACGATC	ATAGAGGTAG	AGAACTCTCAG	TCGGCTGCAT	ATAAGCCTTA	10020
ACCCCTGTGCG	GAACCAAGAC	AATCTCTCTCT	GGCGCAACAA	CTGTACGCAC	AGCAACCTTT	10080
AACTCGTAAC	CAGTCGCATG	CGCTGTCTCA	CGCTTGGCA	ATAAATTTTC	ATCTGTAAAA	10140
CTCGAAACCA	ATTCAAAACC	ACGAATTTTC	ATAATTTTCT	CTTTCTTATT	ATCATTTTAT	10200
CTAGATTATT	CTATACCTAT	TTA				10223

(2) INFORMATION FOR SEQ ID NO: 74:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16535 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGTTCTGTGC	CTTATCGGCG	CCTTGCTCTG	CTTGCCATGG	CTACACCAAC	TATCTCATCC	60
GACGAAAGTA	CACCAACAC	TAACGAACCC	AAACAACAG	ATACAACAC	CCTTGCCCAA	120
CCTCTTACTG	ATACAGCAGC	TGGCTCTGGT	AAGAACGAAA	GTGATATTTT	TTCACTTGGA	180
AATGCAAACG	CTTCCTTAGA	GAAACAGAA	GAAAAACCTG	CTGCAAGCCC	AGCCGATCCA	240
GCACACAAA	CTGGACAAGA	TCGTTCAAGT	GAGCCAACCTA	CTTCTACTAG	TCCAGTAACA	300
ACTGAAACTA	AGGCAGAAGA	GCCCATCGAA	GATAACTACT	TCCGTATCCA	TGTCAAAAAA	360
CTTCCTGAAG	AAAACAAGGA	TGCTCAAGGA	CTATGGACTT	GGGACGATGT	TGAAAAACCA	420
TCTGAAACT	GCCCAACGG	AGCTTTGTCC	TTCAAGGATG	CCAAGAAAGA	TGACTACGGC	480
TATTACCTAG	ATGTCAATTT	AAAGGGAGAA	CAAGCCAAGA	AAATTAGCTT	CCTCATCAAC	540
AAATACAGCTG	GAAAAATCT	AACCGGCGAT	AAATCTGTAG	AAAAAAGTAGT	TCCAAAAATG	600
AACGAAGCTT	GGTTAGACCA	AGATTACAAG	GTTTTCTCTT	ACGAGCCACA	GCCTGCAGGA	660
ACTGTTCCGG	TCACTACTA	CCGCACAGAT	GGCAACTATG	ACAAGAAATC	TCTCTGGTAC	720
TGGGGAGATG	TGAAAAATCC	AAGTAGCGCT	CAATGGCCTG	ACGGAAACAGA	CTTTACGGCT	780
ACAGGCATAAT	ATGGCCGCTA	TATCGACATT	CCTCTTAATG	AAGCCGCAAG	AGAAATTTGGA	840
TTTTTATTAC	TAGATGAGAG	CAAAACAAGGA	GACGACGTGA	AAATCCGTAA	AGAAAAATTAT	900
AAGTTCACAG	ATTTGAAAAA	TCATAGCCAA	ATTTTCTTAA	AAGACGATGA	TGAATCGATT	960
TACACAAATC	CATACTATGT	CCATGATATC	CGTATGACAG	GAGCCCAACA	CGTAGGCACT	1020
TCTAGCATTG	AAAGTAGCTT	TTCAACACTT	GTGGTGCTTA	AAAAAGAAGA	TATCTCATAA	1080
CACCTCAACA	TCACATAATCA	CCTAGGAAC	AAGGTAACCTA	TTACCGATGT	TGCAATCGAT	1140

GAAGCTGGTA AGAAAGTGAC CTACAGCGGA GATTTCCTCTG ACACAAAACA TCCTTATACT	1200
GTTAGCTACA ATTCGGACCA ATTCACCTACC AAAACAACCT GGCCTCTGAA AGATGAGACA	1260
TACAGCTATG ATGGCAAACT GGGAGCTGAC CTAAGAAGAG AAGGAAAACA AGTTGATTGG	1320
ACCCTTTGGT CACCAAGTGC TGATAAGGTT TCTGTTGTTC TCTACGACAA GAATGACCCCT	1380
GACCAAGTAG TTGGAAGTGT CGCTCTTGAA AAAGGGGAAA GAGCAACTTG GAAACAACT	1440
CTAGACAGCA CAAACAACCT CGGAATCACA GATTTCACCT GCTACTATTA TCAATACCAA	1500
ATCGAGCCTC AAGGTAAAC TGTTCTTGCA CTCGATCCTT ACCTAAATC TCTTGCTGCT	1560
TGGAAATAGC ACGATTCCAA GATTGACGAT GCCCATAAAG TGGCTAAAGC CGCCTTTGTA	1620
GATCCAGCTA AACTCGGACC TCAAGACTTG ACTTATGGTA AGATTACAAA TTTCGAAGACT	1680
CGTGAAGAGC CCGTTATCTA CGAAGCTCAT GTGCGTGATT TCACCTCAGA TCCTGCCATT	1740
GCAAAAGACT TGACCAAAAC ATTTGGGACT TTGGAAGCCT TCATTGAAAA ACTAGACTAT	1800
CTCAAAGACT TGGGTGTAA CCAATCCAG CTCCTCCAG TCTTGCTTA CTACTTTGTC	1860
AATGAATTGA AAAACCATGA ACGCTTGCTT GACTACGCTT CAAGCAACAG CAATACAAAC	1920
TGGGATATG ACCCTCAAAA CTACTTCTCC TTGACTGGTA TGTAATCAAG CGATCCATAAG	1980
AATCCAGAAA AACGAATCGC AGAATTFAAA AACCTCATCA ACGAAATCCA CAAACGTGGT	2040
ATGGGAGCTA TCCTAGATGT CGTTTATAAC CACACAGCCA AAGTCGATCT CTTTGAAGAT	2100
TTGGAACCAA ACTACTACCA CTTTATGGAT GCCGATGGCA CACCTCGAAC TAGCTTTGCT	2160
GGTGGACGCT TGGGGACAAC CCACCATATG ACCAAACGGC TCCTAATTGA CTCATCAAA	2220
TACCTAGTTG ATACCTACAA AGTGGATGGC TTCCGTTTCG ATATGATGGG AGACCATGAC	2280
GCCTGTTCTA TCGAAGAAGC TTACAAGGCT GCACGGGCCC TCAATCCAAA CCTCATCATG	2340
CTTGGTAGAG GTTGAGAAC CTATGCCGGT GATGAAAAA TGCCTACTAA AGCTGCTGAC	2400
CAAGATTGGA TGAACATAC CGATACTGTC GCTGCTTTT CAGATGACAT CCGTAACAAC	2460
CTCAATCTG GTTATCCAAA CGAAGGTCAA CCGCTCTTTA TCACAGGTGG CAAGCGTAT	2520
GTCAACACCA TCTTTAAAAA TCTCATTTGCT CAACCAACTA ACTTTGAAGC TGACAGCCCT	2580
GGAGATGTCA TCCAATACAT CGCAGCCCAT GATAACTTGA CCTCTTTGA CATCATTTGC	2640
CAGCTATCA AAAAAGACCC AAGCAAGGCT GAGAATATG CTGAAATCCA CCGTCGTTTA	2700
CGACTTGGAA ATCTCATGCT CTGACAGCT CAAGGAATC CATTTATCCA CTCGGCTCAG	2760
GAATATGGAC GTACTAACA ATTCCGTGAC CCAGCTTACA AGACTCCAGT AGCAGAGGAT	2820
AAGGTTCCAA ACAAACTCA CTTGTTGCGT GATAAGGAGC GCAACCCATT TGACTATCCT	2880

	610	
TACTTCATCC ATGACTCTTA CGA'TTCTAGT GATGCACTCA ACAAGTTTGA CTGGACTAAG	2940	
GCTACAGATG GTAAAGCTTA TCCTGAAAA GTCAAGAGCC GTGACTATAT GAAAGGTTTG	3000	
ATTGCCCTTC GTCAATCTAC AGATGCCTTC CGACTTAAGA GTCTTCAAGA TATCAAAGAC	3060	
CGTGTCCACC TCATCACTGT CCCAGGCCAA AATGGTGTGG AAAAAGAGGA TGTAGTGATT	3120	
GGCTACCCAA TCAGTGTCC AAACGGCGAT ATCTACGAG TC'TTGTCAA TGGGATGAA	3180	
AAAGCTCGG AATTTAATTT GGGAACTGCC TTTCACATC TAAGAAATGC GGAAGTTTTC	3240	
GCAGATGAAA ACCAAGCAGG ACCAGTGGGA ATTGCCAACC CGAAAGGACT TGAATGGACT	3300	
GAAAAGGCT TGAATTGAA TGCCCTTACA GCTACTGTTT TTCGAGTCTC TCAAAATGGA	3360	
ACTAGCCATG AGTCAACTGC AGAAGAGAAA CCAACTCAA CCCCTTCAA GCCTGAACAT	3420	
CAAAATGAAG CTTCACACC TGCACATCAA GACCCAGCTC CAGAAGCTAG ACCTGATTCT	3480	
ACTAAACCAG ATGCCAAGT AGCTGATGCG GAAAAAACA CTAGCCAAAG TACAGCTGAT	3540	
TCACAGCTG AACCAACGAG ACAAGAAGCA CAAGCATCAT CTGTAAAAGA AGCGGTTCGA	3600	
AACGAATCGG TAGAAAACTC TAGCAAGGAA AATATACCTG CAACCCGAGA TAAACAAGCT	3660	
GAACTTCCAA ATACAGGAAT CAAAAACGAA AACAACTCC TATTTCAGG AATCAGCCTC	3720	
CTTGCGCTCC TTGCTCTCG TTCTTACTA AAAAAATAAA AAGAGAACTA AACTAGCCCT	3780	
CCTATAGAAA AATCCCCCAA GCATTATAGC TCGGGGATAT AATTTTGTGA CAATATTTGT	3840	
TGTCCTAATA AACTTGATTA GGATTTTFTA TTAAGCCTCT TTCATAGCAA ATAAGCTCG	3900	
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CATAGAACCA AGCGGTAGAT GAAGCATGAA GCGTCCAACT CTAAATCCT CTATCATGCG	4020	
AATCAATTTT TCGGCCACCT GATCTGGATT GCCAACAAAC ATGGCGCCAT TTGGCCCTAC	4080	
CTGCTCCAAA TATTGCTCAT AAGCAATTC CTGCCAGTGC GGAAGTCTT TGGAAATAGC	4140	
ATCCACCACT TGCTTAGTCG GATGGAAATA ATCTTTCACC GCCTGCTCAC CATCTCCGC	4200	
AATCCACCCC CAAGATGGG CTCCCACTTT CAGTCTTTG TCAGCATGGC CCCTTCGCTT	4260	
CCAATCTCAC GATAAGCCTG AATCAACTTT TTAATAAATC GTGGATTACC ACCAATAATA	4320	
GCATATACAA TCGGTAGACC AGCCTGAGCA ATCTTCACTG TTGATTTCAG ATGACCACTT	4380	
GTAGCTATCC ACAAGGCCAA TTGTCTCTGA ACTGGACGAG GATAAATCTC TTATCCAGCA	4440	
ATCGTTTGAG TCAATCGACC TTGCCAGTCT AACTTGTGCT TTTCATGAC TAACCTGAAGC	4500	
AAGTCTAATT TCTCATCAA AAGAGAGTCG TAGTCTTTCA AGTCATAACC AAACAGAGGG	4560	
AAAGATTCCG TGAAGAGCC CCTTCCAGCC ATATCTCCG ATCGTCCATT TGACAAAGCA	4620	
TCGATAGTGG CATACTGTTG GAACAACGA ATCGGTCCA TGCTTGACAG AATGCTGACT	4680	

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GCATCGTCA AACGGAATTT CTTGGTATTG ACTGCCCCAG CGGCCAGAAC AATCTCTGGG	4740
GCTGATACTG CAAATTCGGC CGATGGTGC TCACCAATCC CATATACATC CAAACCAACC	4800
TTGTCAACCA GCTCAATCTC TGCCACCAAC TGGCGAATGC GTTCAGCATG ACTGPAAGTT	4860
TGTCAGATCC CTTCAGCTC CGTTATTTCC CCAATGTTG AATTTCCAA TTCTACCATT	4920
GTGATTCTCC TTATCTATCT CTGTACTTCA ATTTGAAAAA TTAATCTAAC ACGAATCTTG	4980
AGTACAAGCA ACCGATTTCG TCATTAGAAA AAGCCTAGAT AACTAGACTT TTTTACCTTA	5040
TTCTACCGTT ACTGACTTGG CAAGGTTACG TGGTTGTCC ACATCGAAGC CACGGTGGAG	5100
GGTTCGAAG TAAGGACTA ATTGCGTTGG TACGACCATT GAATTTGGTG AGAGGTATGG	5160
ATGTACGGTC GTAAGGACGA TATCTCGGT ATCTTTGGCT ACATTTCTCT CTGCGATAGT	5220
GAGGACTTTC GCACCAAGGG CTGCGACCTC TTGGATATTT CCACGAGTAT GATTGGCAAG	5280
AACGTGATCT GACAGAGAG CCAAAACAGG CGTTCTTTCT TCAATCAAGG CAATGGTTCC	5340
GTGCTTGAGT TCTCCTGCAG CAAAGCCTTC AACTGGATA TAAGAAATCT CTTTGAGTTT	5400
GAGACTTGCT TCCATGGCTA CGTAGTAATC TTGACCAGTT CCGATGTAAA AGGCGTTACG	5460
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GTAGATGTT CCAGCTGCAA GSATGTAGAT CGGCTTGCG TCTTGAACAG CCTTAATGAT	6000
ATCTGGGTCT ACGACAATT GACCAAGCTC ATCTGTGTAG GCTTGGATGA GTTTCCGCAT	6060
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TTGAATTTCC AACTATCAG CTTGACGAT TACCAACTCT TGCTCATGGA TTTCCATGTA	6240
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AAGACCAATC AAGAGTGGT ATTTATTTTT AGCTACGTAG ATGACTTCAG GATCTTGTGA	6360
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AAGAACTGAG AGCCCTTCTT CTTCGGCAA TTTTCCAATC AAATGAACGG CTATTTCAAGT	6480		
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ACACATAGTA TATACGACAC AGGCAAGCTG TGCTTTCTCC TTAAATGCG TATAGTCTAA	6900		
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TGATTTCTTC AGACGAGCTT CTTCGCTTTC CAAGTCTAAT TCGACCAAC CATAGCGATT	7140		
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ACCATCTTCA GTCAACATCC ACTCAATATT GCCATAATTT TCCTTGATAT TTGGGGCGAT	7380		
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CATCACATAA GGCTCGTAAA AATGTTCTGG TAAGAGTGGA CTCTCTGGAT GCTTAGCAAA	7500		
TCGAGGAGCC ATAACACGCA AAGGTTGATA GTAGTTTACA CCAAGGAGT CCACCGTATT	7560		
ATCAAGAAAG AGTTCCAACT CTTCCTCTGT AGCATCAGGT AAAAGACCGT GTTCATGCAA	7620		
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AGCCGCTGTC AAGTTGAGGA CAATCCCAAT CTTOGAATCA GGCAAAAGT CATGGCAAGC	7800		
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CTCGTTAAAG GTAATCCATT GATCCACTAA ATCTCCATAA GTCTCAAAAC AAAAACGAGC	7980		
ATAGTCTTCA TAGGCTGAGA CTGTGCGCTT ATTTTCCCAA CCAATCAACAT CCTCTTGAAG	8040		
GGCAAAAGGT AAATCAAAAT GATAGAGATT GACTAACAGA CGAATTCCTT TAGCCTTAAT	8100		
AGCCCTCAAG ACCTTACGAT AAAAATCCAC ACCTTGAGTG TTGACTTTTC CACAGCCTTG	8160		
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ATTATAGTAA CGATTGGCTT CCACCTGGAA CCAGTAATCC CAGAGATGCT CTCCTTACC	8340
GTCCACAGCT ACACGTCCTT CTGTCTGGG TCCAGAAGTA GAGGATCCCC AGACAAAATC	8400
CTTTGGAAAT CTTAGCATAC AATTACCTCT TTAATCTACT ATTTCTCCCA TTATACAGAA	8460
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CGGATTGGAA GACCAATCAA GTCACATGCG CTAATTTTAA CACCGACACG TTCGTTACGG	8700
TCATCTGTCA AGACTTCATA ACCAGCTCCC ATCAAGCTTG CTTCAGTTT TTCTGTCAAG	8760
GCTTGCGCTT CTTCATCCTT GACATTGACA GTAATCAANT GCACATCAAA TGGTGCCAAT	8820
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AAGAGGCGAG CGTGTGTCTC CATCACTGCT GAAAGAAGAC GGCTGACACC GATACCGTAA	8940
CATCCCATGA TGATTGGCAC AGCAGGACCA TTTTCATCCA AGACATCTGC TCCCATGCTT	9000
GCTGAATAGC GAGTTCCGAG TTGTGAAAATA TGACCGATCT CAATACCACG CGCAAGTTA	9060
AGGACACGCT GTCCATCTGG GGAAATTTCA CCTCAGCAA CTTCACGGAT ATCCACATAT	9120
CTGTGAGTAA AATCAAGGCC TGGGTTTACA CCAGTCAAGT GGTAGTCATC TTCTGTAGCA	9180
CCGACAACTG CATTTGGGAC ATCTTGATAC TTACGATCTG CAATAATTTT AATATCTCT	9240
GGCAAAACCA CTGTTCCAAG TGAACCAAT CCTGCTTGAA CAACATTCGC CACTTCTCT	9300
TCGCTAGCAA CGTCAAGAA ATCTGCTCCC AAGTGATTTT TCAACTTGAC TTCTGTGAGT	9360
TGGTCATTTT CAATCAGAAG GGCTGCAACA AGCTCACCAT CTGCAATGTA GAAGAGGGTT	9420
TTAATCGTTT GTTCTTCTGG AACATTGAGG AAGGCTGCAA CTTCATCAAT TGAATTTAACA	9480
TCTGGCGGTG CAACACGAGT AACTTCTTCT TCAGCGACAA CACGGTTGCT TGGTTTGTAC	9540
TCGTTTGTG CCATTTCTAA GTTAGCTGCA TAGCTAGACT CACTTGAGTA AGCAATGGTA	9600
TCTTCACCAG AGACTATCCA TTTGAGCAAT TCTGCTTTGA TTTCTTCTTG CACTTCGCA	9660
GGATTTTCTG CAATGAGGC AACTGACTTG TCCAAGACAA CCCAGCGGTC AAGGTCGTGA	9720
CGAGCAGATG TAATGGCCAT AAATTCCTGG CTATCCTTAC CACCCATGGC TCCACCGTCA	9780
CCAATATAG CCTTGAAGTC TAAACCACTA CGAGTGAAAA TAGGCTCATA GGCTGCTTTG	9840
TACTCATCAT AAACACTATC CAAACTATCA TAGTTAGCGT GGAACATATA AGCATCCTTC	9900
ATGATAAATC CACGTGTACG AAGAAGTCCA TTACGCGGGC GTTTTTCATC ACGATACTTG	9960

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GGCTGAATTT	GATAAAGGTT	GAGTGGCAAT	TGCTTGTAAAG	ATTTAAACAGA	ATCACGGACA	10020
ATAGCTGTAA	AGGTTTCTTC	GTGAGTTCGA	CCTAAGATAA	AGTCTGATTT	TTACAGGTTT	10080
TTTAGTTTCT	AAAGGTCCTC	ACCATAGGTT	TCGTAAOGAC	CTGATTCACG	CCACAATCTT	10140
GCACTAAGAA	GGGCTGGAGC	CAACATCTCA	ACAGCACCAA	TCTTTTCGAA	TTCTTGGGCT	10200
ATGATGTGTT	TAGCTTTTTC	AATCACACGG	TTGGCAAGTG	GTAGATAAGA	ATAAACACCT	10260
GCTGAAACTT	GGCGAACATA	ACCAGCACGC	AACATAAGAG	CATGGCTGAT	AACCTTGAGCA	10320
TCGCTTGGCA	TTTCGCGAAG	CGTTGGGATA	GGCATTTTAC	TTTGTTCAT	AATATTCCTC	10380
GATTATCTAA	AAAGAGTTCG	CATTAATGTCA	TTCCAAGTCA	CAGCAATCAT	CAAGACAACC	10440
ATGATGACCA	CTCCGGCCAA	GGTGACATAG	GTTTCAATTT	CTTGTTCCAA	TGCTTTGCGG	10500
CGGATGGCTT	CTAGGATATT	GAGCACAACT	TTACCACCAT	CCAAGCTGG	AATCGGAATA	10560
AGATTAAJAA	TCCCAATFAT	GATGGAAATC	ATTGCCAAGA	AGTACAAGAT	ATTTTCAATT	10620
CCATTTTTAG	CAGCATCACT	ACTTGCCCTA	AAGATAGCAA	CAGGTCCACC	CAACTGTGTC	10680
AAATCTGGT	GGAAATCAG	ATTTTTCAGA	GCTGAGAGAA	TTCCGGAGAGC	TGAGTCAGCA	10740
GCAGTTGTAA	AACCACCTAC	AAACATGGAT	AGAAATCTG	ACTTAAACCC	CGGTTGAACA	10800
CCTAGAAGGT	AACGACCTTG	ACTATCTTTG	GGTGTACAG	TGACTTGTTT	GTCACTCCCC	10860
TTTTCAGAAA	TAGTCACATC	CAAAGTCGGT	GCGTCTTAT	CTTTGTTTTC	TGTTTCCACA	10920
GCTTGATCA	AGCTTTCCCA	GTTGCTAACG	TCATGTGAGC	CAATCTTGCT	AATTGTGTC	10980
ATTTCTGGTA	CTCTACCTT	GGCCAAGGCA	CCTTGGGGCA	TGATATGGAA	CTGATTGGTA	11040
TCAACATCTC	TGACACCAAC	CTGCATAAAG	ATTAAAACCC	AAAAAACAA	GACACCTAAG	11100
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TGATATTGAA	CATCTAAMGG	TGCAATCCGA	ACCTCAGTAC	CATCTGCTTC	CACAACCGTT	11220
GCATCGTGA	CCACTGCAAA	TGTTTTTCTT	TCCTCCAGAA	CCAAATCCTT	GATPAAAGAGC	11280
TTGTTCTCAA	AATCAAACGT	GGTCACCTGC	ATAAGGAGGG	CTGTTTGATC	CAATTTTTTA	11340
CCTGAGAGAT	TGATGCGTTT	AACCTTACCA	TCATCAGCAA	GTGTCAAAT	AACAGGCGTT	11400
CTGTCTTGA	TTTCAGTTGT	ATCATCACCC	CAACCGGCCA	TGCGGACATA	GCCACCCAGA	11460
GGCAAGATTC	GAATGGTATA	GGCCGTTCCA	TCCTTGGCAA	TGTGAGCAAA	AATTTTAGGT	11520
CCCATACCGA	TGGCAATTC	ACGTACTAAA	ATCCCTGATT	TCTTGGCAAA	GTAGAAATGA	11580
CCGAATCTGT	GCACTACTAC	AATAATCCCG	AAAACAGAA	TAAAGGTTAA	AATTCAGAGC	11640
ATAGCGTTTC	CTCCGCTTTT	TGATTAAAG	AGTCCAAATA	AGTGCATGAT	TGGAATAACA	11700
AGCAACATAC	TATCGAAAGC	ATCCAAAJACA	CCACCATGTC	CAGGAGATAAA	TTTCCAGAA	11760

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ATGCTAAGA	AAATAGCAA	GACTGACATC	TTGTAATTC	CATATGGAAG	AGCAACTGTA	11880
CTGTCAACTA	TCATAAGGAT	AATGGTTACT	AAAATTGCTC	CTAAAAATCC	ACCCAAGGCA	11940
CCCTCAAGG	TTTATPAGG	CGATACCCCT	GGTGCTAACT	TTCTGTTTCCC	ATAATTCTATC	12000
CCAACAAGAT	AGGCACCACT	GTCTGTGCGC	CAGACGATAC	ACAAGGCTAA	GAGAGCCTTG	12060
TCCAAACCTG	CAACACGAGC	ATCTAGTAAA	GCATTAAATC	CAAAAGCCAC	GTAGAAGCTC	12120
ATAGCAAGAG	GGAAAACCGC	ATCCTCAATC	GTATAAGACT	TGCTAAAAAC	GGTCGTTCTCT	12180
AACATGATTG	AAATCAAAAC	ACTATAGGCA	ACCACATTCC	CATCAACTGG	CAAAAAGTTC	12240
AGGTAATCTT	CCAAGGGGAT	GGTCAATGCA	AAGGTTGCAA	AGAGGGTCAA	GAGGCCCTCC	12300
ATCGTCAATG	TCTCTAGACC	TCTCATCTTC	AAAAGTTTAT	GCATGGCTAG	CATGGCTATG	12360
ATTCCGATTG	CTATCTGAAG	CAAGAGGCCC	CCAATCATTA	AAATTGGTAG	GAAAAATAGCC	12420
AGGGCAATCC	CTGCAACAA	GGTCTTTTTC	TGTAATCTCT	GGGTCTATAT	TCCTCCTAAA	12480
CTCCTCCAAA	TCGGCGATGA	CGACGATTAT	AGGCAAGAA	AGCTTCTCTG	AAGGCCGCTT	12540
CGTCAAAATC	AGGCCATAAG	GTGTCCGTA	AATAAGGCTC	ACTATAGGCT	CCCTGCCATG	12600
GAAGGAAATT	GCTCAACGTT	AATTCTCCAC	TAGTACGGAT	AATCAAGTCT	GGGTCTCGTA	12660
AGTCTTAGG	CAAAATGCTGA	GTAAGAGGAT	AGTTACCAAT	CAATTCTCTCT	GTGATGTAC	12720
CTGGGTGTAT	TTTGGCTCT	AAAACATCCT	GGGAAATCAA	CTTAAGCGCC	TGTGTAATCT	12780
CAGCACGTCC	ACCATAGTTA	AGAGCAAAAT	TAAGAAATCAA	TCCTGTGTGTG	TTCTTAGTCA	12840
ATTCTCTCAGC	CTTGGTTAAA	GCTTCAAAAG	TTTGCTTAGG	CAGGCGGTCT	GTCTCCCCAA	12900
TCATTTGAAT	CTTAACATTA	TTGCAATGTA	GTTCGGGAC	ATAATATCA	TAAAACTCTA	12960
CTGGCAAGTT	CATGATTAAC	TTGACTTCTCT	GATCTGGACG	GGTCCAGTTT	TCCGTAGAAA	13020
AAGCATAGAC	CGTAATAACC	TTGACGCCCA	GTTTGTGGG	TGCCTTGGTC	ACGGTTTGCA	13080
ATGCTTCCAT	GCCCCCTTA	TGTCCAAAA	CTCCGGGTG	CATACGTTT	TTAGCCCAAC	13140
GGCATTGCC	ATCCMTGATG	ATGCCGATAT	GAGCAGGAAC	CTGTGTGGGA	ACCTCTACTT	13200
CCACAGCCTT	ATCTTTCTTA	AAAAATCAA	ACATGATCTT	ATTCTTATTC	AAAAATCTAT	13260
CGTTTCAATTA	TACCATATTT	CCCCATTTTC	TTCTATCACT	AAGCTATTTA	TTCTCAGGCA	13320
CCAAGCCCAT	TTTTCAAAAA	AATAAGCCGC	CTGATTGGGC	GACTTTATTT	TTATAGGGAG	13380
ATTATATGA	AAAAGTTTAA	GGAGTTTAA	TTAAGGCTCT	CTTAACCTAT	GAACCTAGTG	13440
TACACTCCCT	AGCTTAAAGT	TTCTTAAAGT	ATTTTAAAA	ATCAAAATTT	TCCAATTTCTC	13500

		616	
CTGCCAATTT TTCTTGGATA AACGTGTTTG ATAGAGTTCC ATTGGGTCTT CAFTTTCTAA	13560		
GAAATGAGGA GTTGGACGAA CTTGAAAAAT CAAAATATCC TCCAAACCAT AAGGTACATA	13620		
GAGTTCAAAA TCTAATCTCT CATTTCAAGCG CAGTCCAACT GCCGTACACC GTTCTGGATA	13680		
CTTACTCATA GCATCACGAG AACTGGTATA GGAAGCAGTG TGAGGACTGT GCTGATGCAT	13740		
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CAGTAATAAG GTTTCCTCAT AAGAAAAATC TGGATCAAAG AAAATCACAT CTATATCTGT	13860		
TTTATGATCA AAAGGGGATT TGTCTGACAA AAGATTCCAG ATGAAATTTT TGACAGAAAC	13920		
TGCTGCCAAC CACGAGTCTT TCAAACCAAG GTCTCGGATG ATCGTCAGAA TGGCCATCAT	13980		
ATCTGGACTT CCTCTAAAAG CTTCTAAGAT TCTTTGCTTA TTTTTCACGT TATTATTAAC	14040		
CTAAGTGCTC ATATGCCCTA GCAGTCGCCA CCCGTCCAGA CCGTGTCGCG ATGATAAAAC	14100		
CTTTTTGAAT CAAGTAAGGC TCATACATGT CTTCAACTGT CATCCGCTCT TCGGCGATAT	14160		
TCACAGAAAG AGTTCCTAGA CCAACAGGTC CTCACATGTA CATCTCAATC ATGGTCCGAA	14220		
GGATTTTTTG ATCCACATAG TCCAAACCTT CATGGTCAAC ATCCAGCATA GTCAAAGCCT	14280		
TATCGGTAAT AACATCATGT ATAAACCCAT TCCCATTTAT CTGGGCAAAA TCGCGCACGC	14340		
GCCTGAGGAG ACGATTGGCA ATACGAGGGG TTCCACGACT ACGTAGGGCC AACTCAGATG	14400		
CTGCCCTCATG GGTGATTTCC ATCTCAAAAA TATCTGCCGT CCGCTCGACA ATTTCGTCTCA	14460		
AGTCAGCATG AGCATAATAC TCCATATGAC CTGTAACTCC AAAACGTGCC CGATATGGAT	14520		
TTGAGAGCAT ACCAGCCCGA GTCGTCGCAC CAATCAAGGT AAAAGGAGGC AACTCCAAAT	14580		
GAACACTGCG ACTGCCCTCA CCAAGCCCAA TCATAATATC GATGTAGAAG TCCTCCATGG	14640		
CACATATAAG CACTTCTTCC ACTGACATGG GTAAAGCGATG AATCTCGTCA ATAAAGAGGA	14700		
CATCTCCAGG CTCTAAATCA TTCAAAATCG CTACCAAAAT ACCCGCTTTT TCGATAACAG	14760		
GACCAGACGT TTGCTTGAGA TTGACTCCCA GTTCAATGGT AATGACAAAA GCCATGGTTG	14820		
TTTTCOCAAG CCCTGGAGGG CCAAAATAGA GCACATGATC CAGCGCTTCA TCCCGCATTT	14880		
TAGCGGCTTC GATAAAGATC TGAAGTTGAT CCTTAACTT ATCCTGACCA ATATATTTCAC	14940		
GTAAATPACTG AGGACCGAGC GTGCGTTCTA CTAACTCTCT ATCACCCATC ATCTCATTTAT	15000		
CTAAATCTCT ACTCATGGCT CTATTATATC AAAAAAACA AGCCACAAAC AAAAAAGCCA	15060		
CCTGATTGGG TGACTTCTAA GTTTAGCACT TATGTGGTAT AATATTATAC GGCACITCTCA	15120		
CACCGCTTAC GAAAGAGGT GAGATAGCCC ATGATGGAAT TAGTACTCAA AACTATTATC	15180		
GGACCAATTTG TGGTCGGTGT CGTTCCTCGT ATAGTCGATA AATGGCTAAA CAAGACAAA	15240		
TAGTGTCAAA AAGACCTCA AGCTTATTTG GTCTGTAGCT TGGGTCTTTT TCTAGCCTAT	15300		

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GATATAGAAC TAGTACTCAA TTCTTTTFA TTATCCCATTA GTTCACGAAT TTGTCAAAA 15360
 CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA 15420
 TTCTATCAAT TTCATAGAAA TTTTGATTTC GTAAACGAAG AGACAATCTT ACATGTCCT 15480
 TCTCATTTAA TACGCCACTA CTAGACAGCG AAAATCATTA TTACAGTAGT TCCAGTCCTT 15540
 CAATTAACAG TCACTTACAA TCAATTTGAG TTGAACTAG CTGAAGCGAC CACAGACCTA 15600
 TTCTTAGTGC ATATTGCTA AAAAATCCC GCCAAAATC TCAAAAAGTC CCCGCCAATT 15660
 CCCCGACCAA ANTCCGAAA ATACCGAAAA ATATCGAAAA ATTATTTTFA GAATAGTCCC 15720
 AAAAATCTCG AAATAGAGCT AAAAACTCC ACCTGATCG GTGGAGTTAA GGGAGATTAT 15780
 TATGAAAAAG AAAGTTTAG GATTTTATTA AATAAGTTA GGAGGCTTTT ATTTAATAAC 15840
 TACATGATAC AAGACGAAAC TTAAGACTAG CTTAACTTTT CTAAAAATTT ACTATTTTGC 15900
 AAAAAATTC TATCACCAGC ACCTACCAA TCGAGTAGGG GATATCTCT AGCCCTCTC 15960
 ACACCACCGT ACGTGCCTT TCGCATACGG CGGTCAACT AACTTTTAA GCATGTGCT 16020
 CAAGGTATA ATCCAACAC GAAACAGTC CACGTTTTTC CAGGACTGGT TTTGATATAG 16080
 CACGTTTAA TACCGACTTC TGAGCTACTA ATTGATATG GTGCCCCAG CCAGATACCT 16140
 TATCTGCTAT CCATTAGGA ACTCCTAAT TAAGCAATCC CCAATACTGT CTCGATTTCT 16200
 TCTTCATTC CTTCAGATA ATCACTCGTA GCGAGTAGC CAAGCGCTCA TCTATGCTGG 16260
 CGACTACTAT TTICATATTT CCCAATGAGC AATAGTTTAT CCATCCTCGA ATAGACAAAT 16320
 TCAGTTGCTC AATACGCTCT GTTAGGCTTA TACTCCATTT CTCTGTGTT AGTTCTTCA 16380
 ATTTAAACIT AAATCTCCGA ACACTATCTT GATGTGACG GCTTTTCCAA CCATCTGATA 16440
 ATTTCCAGAA CCCAAAACCT AGATATTTCA ACTCTCTGG TCATCTTTAC TTTCAAACCT 16500
 AGCCGTTTCT CAATAACGA CTGACTGAAT ACATC 16535

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8136 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGGCTCT TTAATAACAA AAGGAGAAAT 60
 GATGCACTACT TATTTGCAAA AGAAAAATTGA AATATACAAA ACAACCTAG GTGAAATGTC 120

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AGGTGGTTAC	CCTCGTATGG	TTGGGGCTAT	GGCTGATTTA	GGATTTTCAG	GAACATATGAA	180
GGCTATCTGG	GATGACCTCT	TTGCCCATCG	TAGTTTGGCC	CAGTGGATTT	ATTTCCTGGT	240
TTTAGGAAGT	TTTCTCTCT	GGCTGGAGTT	GGTTTACGAA	CATCGTATTG	TTGACTGGAT	300
TGGGATGATT	TGTAGCTTGA	CAGGGATTAT	CTGTGTAATC	TTTGATTCGG	AMGCTCGAGC	360
AAGTAATTA	CTTTTGGCT	TGATTAACTC	TGTTATTTAC	CTTATTTTGG	CCCTACAGAA	420
AGGCTTTTAT	GGTGAAGTGC	TGACGACACT	TTACTTCACA	GTCATGCAGC	CAATTGGACT	480
TCTAGTTTGG	ATTTATCAGG	CACAGTTTAA	GAAGGAAAAG	CAGGAGTTTG	TGCGCGGTAA	540
ACTGGACGGC	AAGGGCTGGA	CAAAGTATCT	TTCCATTAGT	GTGCTTTGGT	GGTTGGCCCT	600
TGGCTTCATT	TATCAGTCTA	TTGGTGCCAA	TGCTCCCTAT	CGTGAATCAA	TCACAGATGC	660
AACCAATGGG	GTAGGGCAAA	TCCTCATGAC	AGCTGTTTAC	CGTGAACAGT	GGATATCTCT	720
GGCGGCTACC	AATGTCTTTT	CAATCTATCT	CTGGTGGGGA	GAAAGCTGCG	AAATTCGAAG	780
GAAATATCTA	ATTATCTCTA	TTAACAGTCT	AGTTGGTTGG	TATCAATGGA	GCAAGGCAGC	840
TAAGCAGAAT	ACTGATTTAC	TTAACTAGGA	AAAGATGTTT	GAAAGTGCTG	TTTTGAGATT	900
TCGATTAAAA	CAGATATAGT	TGATAATCAA	GGATTATATG	TATGAAAAAG	AGGATCGGCG	960
GGTCTCTCTT	TGTTGTGAA	AAGATAAAAA	ACTCAGTAA	CTAGAAATAA	GACAACTGAA	1020
GCTTTACTCT	ATATTCAATT	TTTAGGAATG	AGAAGGTCTA	GATAAAATTG	GACAACTTCC	1080
TGGTCTGTGA	AATCTTGACC	TTTTTTGAGC	CACCAGGTCA	ATGCTCTGAT	AAAGTTGGAC	1140
ATGACCAAGT	GTGGAGGTA	AGAAGTAGGC	AGATTAGGGT	GGGCTTCTTT	TAAATTTATCA	1200
GCTAGCAGCG	AATAGACATG	GTGTTCTAGC	TCTTTATGGA	GTTGACGGAG	GAAGTAGTCA	1260
TTTTTGAAA	ATAGCAGACT	GCTGATATGG	TCTTGGTTTT	TATGAAAAATG	GAGAAAGAGG	1320
TGGGCGAGGT	AGTCTCTGGT	TGAAATGGCT	TGCTCTCTTT	CAAAAAGATG	ATGGAAGAGG	1380
TAGCGGCGAG	GCTGGTCCAG	AAGAAGCTCC	TACTCTCAT	AGTGACAGTA	AAAGGTGGAT	1440
CGTCCACAT	CTCGAGATC	AATGATATCC	TGAACAGTAG	TGGCCTCGTA	GCCTTAGTA	1500
TTCAAAAGTT	GTATAAAAGC	TTGATAGATG	GCTTTTTTGG	TTTTGTGAT	ACGGCGGTCA	1560
ATGTTAGTCA	TATGACACT	TAAGCCAAAT	TGTTTCAAGC	TGAATTAAGC	TGACGTTTTG	1620
CTTCTATCCT	TTCTTTGAGT	TTTATGATAT	AATGATAATG	AACAAGGTGT	TGATTAATAT	1680
ATTATAACAA	AGGAATGAGA	AATATGAAGG	CAAAATATGC	TGTTTGGGTG	GCTTTTTTCT	1740
TAAATTTGAC	TTATGCCATT	GTTGAGTTTA	TTGCAGGTGG	AGTATTTGGT	TCTAGCGCTG	1800
TTCTTGCTGA	CTCTGTGCAT	GACTTGGGAG	ATGCGATTGC	AAATTGGAATA	TCAGCTTTTC	1860
TAGAAACAA	CTCAATCTGT	GAAGAAGACA	ATCAGTACAC	CTTGGGCTAT	AAGCGGTTTA	1920

GCCTGCTAGG AGCCTTGGTA ACAGCTGFGA TTCTCGTAAC GGGCTCTGFT CTAGTCATTT	1980
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TAGGAATAT TAGGTTACT ATCAATCTGT TAGCGAGTCT GGTGGTTGGT AAGGGAAGA	2100
CAAGAAGTA GTCATTCTG AGTCTGCATT TTCTGGAAGA TACGCTAGGG TGGGTAGCTG	2160
TTATCCTGAT GCGGATTGTT CTTCGATTTA CGGACTGCTA TATCCTAGAT CCTCTTTTGT	2220
CCCTTGTCTAT TTCTTTCTTT ATTCTTTCAA AAGCCTTCC ACGTTTGTG TCTACACTCA	2280
AGATTTTCTT GGTGCTGTG CCAGAAGGTC TTGATATCAA GCAAGTAAG AGTGCCCTGG	2340
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AAAAAATGC CATTGTCCAT GTTTGTCTAA AAGAAATGGA ACATATGGAA ACTGTATAAG	2460
AGTCTATTGG AATTTTCTTA AAGATTGTG GTTTTCAAAA TATTACCATT GAAATTGATG	2520
CTGACCTAGA AACTACCAA ACCCATAGC GAAAGGTGTG TGACTTGGAA CGGAGTTATG	2580
AGCATCAACA TTAGAAAAA GTGAAAAATA CTGGGTACT ATCTTATTTG GAATAGAGTA	2640
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GAATAATTTA AATGAATCA GCAGTATATA CAAGGCAGG TCAGGTGGA CTGCTAGCA	3240
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CAGGTGATTT TGTGATTGTC CCTTTACAC ATGGATGTGG TGAGTGTGAT GCTGTCTTTG	3480
CTGGATTTGA CGGTTCTTC GACAATCATA TTGGCANTAA TTTGGGGGGT GATTTTCAGG	3540
CAGAAATATAT TCGCTTCCAC TATGCAAACT GGGCGCTGGT TAAATCCCT GGTCAACCTT	3600
CTGACTATAC AGAAGGGATG CTCAGTCCC TTTTGACTCT TGCAGATGTC ATGCCGACAG	3660

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GCTATCATGC GCGCGTGT GCAAAATGTC AAAAAGGGGA CAAGGTTGTT GTPATCGGTG	3720
ATGGGGCTGT TGGTCAATGT GCTGTCTATG CGGCTAAGAT GCGTGGAGCA TCACAAATTA	3780
TCCTTATGAG CCGTCATGAA GACCGTCAAA AGATGGCTAT GGAGTCAGGT GCGACAgcTG	3840
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TTCAATAATG AGGGCGTATG GGCTTTGTAG GAGTCCACCA CTATAATAAT CGTGCTCTTG	4020
GTTCGACATT TATGCAAAAT ATCTCTGTAG CAGGTGGGGC AGCTTCTGCT ACAACATACG	4080
ATAAGCAATT TTTACTAAAA GCCGTCCTTG ATGGTGATAT CAATCCAGGT CGGCTCTTTA	4140
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CCTGCTCGCG CCATTTCCTC AGTATAAACT GTAATACTAG AGAGGGGAGG ATAGACCTGT	4440
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GGCGGAAGTT GGTCTCCCAa GCTCTGAATG GCTCTCTTCA TTAAGTCATA GCCAGACTGG	4620
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TTTCCGATGC AGAGAATCCC AATCACTTCC TCGCTTAGGG TAAAAGGGTG GTCAATTAAA	4980
TAGCGCAAGA TATCATATGC CAACTCTTGG GCTCTTTTTT CTATTCTTAG GCGAATCTGG	5040
TAGTAGTAGA GGTCTGCCAG CTCCCCTTGT TCGCTGACCC ATTGGATAAT GGCAATCTTT	5100
TGCTTGGGTT TGTGGGACTC GCTGTCTTGT AGGTCTTGCT TGTAGCCGAC CTCTTCAGCA	5160
ACGGTTAAAA TACGGTGTCT GCTTTCTTCT GTAACAGATA GGCTCTGGTC GCGGTTGAGG	5220
ACCGCGGATA CGGTGCGGAT AGAGACAGAG GCTAGCTGTG CAATGTCTTT TAAGGTAGCC	5280
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TAAATTTTA GTAAAAAGGA TTGACCTTGG AAAATTCCTT GGATATAATA GAAAGAAAAC	5400
GATTACACCT TAAGATGGCT TAACGGACAG TCAAGGAGA ATTATATGG CACAACATCT	5460

TACTACTGAA	GCCCTTCGCA	AAGACTTTCT	TGCTGTTTTT	GGTCAAGAAG	CAGATCAAAAC	5520
CTTCTTTTCA	CUAGGCCGCA	TFAATTTGAT	TGCTGAACAC	ACAGACTACA	ACGGTGGGCA	5580
CGTTTTCTCT	GCTGCTATTT	CCTTGGGAAC	TTACGGTGCA	GCTCGTAAGC	GTGACGACCA	5640
AGTCTTGGCT	TTCTACTCAG	CTAAGTTTGA	GGACAAGGGC	ATTATCGAAG	TGCCTCTCGC	5700
TGACCTCAAG	TTTGAAAAG	AGCACAAGCT	GACCAATTAT	CCAAAAGGTG	TCCTTCATT	5760
CTTGCAAGAA	GCTGGGCACG	TGATTGACAA	AGGTTTTGAT	TTTTATGTTT	ATGGAATAT	5820
TCCAAATGGT	GCTGGCTTGT	CTTCTCTGCG	ATCCTTGGAA	CTCTTGACAG	GAOTCGTGGC	5880
TGAGCATCTC	TTTGATTAA	AATTAGAGCG	TCTCGATTG	GTTAAATCG	GCAACAAAC	5940
AGAAAACAAC	TTTATCGGAG	TAAACTCTGG	CATTATGGAC	CAGTTTGCTA	TTGTTATGGG	6000
GGCAGACCAA	CGTGCTATTT	ACCTAGATAC	TAATACTTTA	GAATACGACT	TGGTGCCACT	6060
TGATTTGAG	GACAATGTG	TTGTTATCAT	GAACACCAAC	AAACGCCGTG	AAFTGGCGGA	6120
CTCTAAATAC	AATGAACGCT	GTGCTGAGTG	TGAAAAGCA	GTGGAAGAAT	TGCAAGTTTC	6180
CTTGATGATT	CAGACTCTGG	GTGAATTGGA	CGAGTGGGCC	GTTGACCAAT	ATAGCTATCT	6240
GATTAAAGAT	GAATACTGTT	TGAAAGCTGC	TGCCATGCT	GTGCTGAAA	ACCAACGTAC	6300
CCTCAAAGCT	CAAGTAGCAC	TCCAAGCAGG	AGATTTGGAA	ACATTTGGAC	GCTTGATGAA	6360
TGCGTCACAC	GTCTCTCTGG	AGCATGATTA	TGAAGTAAGT	GGTTTGAAT	TGGATACCTT	6420
TGTTTACACA	GCTTGGGCAC	AAGAAGGAGT	TCTCGGTGCT	COTATGACAG	GGGCTGGTTT	6480
TGGTGGCTGT	GCATTTGCTT	TGTTTCAAAA	AGATACTGTT	GAGGCTTTTA	AGGAAGCTGT	6540
AGGCAACAC	TACGAGGAAG	TAGTTTGATA	CGCTCCAAGC	TTCTATATCG	CTGAAGTTGC	6600
AGGTGGCACT	CCTCTCCTTG	ACTAGTCAA	AGGAGGCTCT	ATAGTGACCT	TAGTAAATTA	6660
ATTTGTAAAC	CATGTCATTT	CTGAAAGCTC	ATTTGAGGAA	ATGGATCGAA	TCTATCTGAC	6720
CAATCGTGTT	TTGGCACGAG	TGGGAGAAGG	TGTTTTGCAA	GTTGAGACCA	ATCTGGATTA	6780
ATTGATTGAC	CTCAAGGACC	AGCTGTTGA	AGAAGCCGTT	CGATTAGAGA	CGATTGAGGA	6840
TAGTCAGACT	GGCGGTGAAA	TCCTTGGTGC	TGAAGTGATG	GAATTTGGTA	CTCCTTGTCC	6900
AAGTCAGGTC	AATCGTGATT	TTTGGGCAAC	CTACGCCAC	TCTCCAGAAC	AAGCGATAGA	6960
GGATTTTTAC	CAACTCAGTC	AGAAAAATGA	CTACATCAAA	CTCAAGGCCA	TTGCTAGAAA	7020
TATCGCTTAT	CGTGTCCAT	CTGACTACGG	AGAAGTTGAA	ATTACCATCA	ATCTCTCTAA	7080
GCTTGA AAA	GATCCCAAG	AGATTGTGGC	AGCCAAGTTG	GTGCAAGCTA	GTAATTATCC	7140
TCAGTGTGAC	CTTTGTCTAG	AGAATGAGGG	CTACCATGGT	CGAGTTAAAC	ACCCAGCTCG	7200

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TAGCAATCAC	CGTATTATCC	GTTTIGAAAT	GGTTGGTCAG	GAATGGGGTT	TCCAGTATTC	7260
GCCCTATGCT	TACTTTAATG	AGCATTTGAT	CTTTTAGAT	GGCCAGCATC	GTCCCATGGC	7320
CATTAGTCGT	CAGAGTTTG	AACGTCGTGT	GGCTATCGTA	GACCAGTTC	CAGGATATTT	7380
TGCTGGATCT	AATGCCGACC	TGCCGATTOT	GGGGGGCTCT	ATTCTAACTC	ATGATCATTA	7440
TCAGGGAGGC	CGTACGATAT	TTCTATGGA	ATTGGCTCCC	TTGCAAAAGG	CCTTCCGATT	7500
TGCTGGTTTT	GAGCAGGTCA	AGGCTGGAAAT	TGTCAAGTGG	CCCATGTCTG	TCCTACGTCT	7560
GACTTCGGAT	TCCAAGAGAG	ATTTGATCAA	TTTGGCTGAT	AAGATTTTGC	AGGAATGGCG	7620
CCAGTATTCA	GATCCTGCAG	TGCAGATTTT	GGCAGAGACA	GACAGGACAC	CGCATCACAC	7680
TATCACACCC	ATTGCCCGCA	AACGCGATGG	ACAGTTTGAG	TTGGACTTGG	TCTTGGGAGA	7740
CAATCAGACT	TCAGCAGAGT	ATCCTGATGG	TATCTATCAT	CCCCACAAGG	ATGTCCAACA	7800
TATCAAGAAG	GAATAATATCG	GCTTGATTGA	GGTCATGGGC	TTGGCAATCT	TGCCACCACG	7860
TCCTGAAGAA	GAACTGGAGC	AAGTCGCTAG	CTATCTTGTA	GGAGAGCTGG	TTACAGTTGC	7920
CGATTATCAT	CAGGAGTGGG	CAGACCAACT	CAAAATCCAA	CATCCAGACT	AACGGATAAA	7980
GAJJAAAGCCC	TTGCAATCGT	CAAGGACTCT	GTGGGTGCTA	TCTTTGCGCG	TGTACTTGAG	8040
GATGCAGGAG	TCTACAAGCA	GACAGAACAA	GGGCAGACAG	CCTTTATGCG	CTTTGTGGAA	8100
CAGGTGGGAA	TTTTACTAGA	CTAGGAGCTT	TCTCGG			8136

(2) INFORMATION FOR SEQ ID NO: 76:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10011 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA	AGAGTGGCCA	TAAGAAAGTC	TTCTAGGCTT	AATTAGGTT	TTGTTCCACC	60
TTTTGCTGTG	TTAAGTTGAT	AAGCTGTTTT	TAACACAGCT	GAACATCTCT	TCAAAAGTCG	120
TGCGCTGAAC	ACCAACAAGA	CATTAAATC	GTGTATCAGT	TAGTTGTTTA	CTTGTCTCAT	180
CATTATAGA	ACTACTATAC	CATGTTTTGT	TTGCGAGGAA	GTCTAATATT	GTCAAAATCT	240
GGAAACCTCA	TTGCTGGGAT	ACGGAATAAG	ATTGGCCAG	CTTGATAAAC	TGGGAATACCT	300
GGTTCAAJAC	CAGGTCCTGT	TGCAGCGATT	GGTGTAAGA	TATCGTAACC	TTTCATAAGG	360
TCTTCGTTTA	CATCTTTTCA	CATAACTGCA	TCACAGTGAA	CATCGTAACC	ACGCTTTGAA	420
AGTCTTCTCT	CTAGAGCACT	TTTAATTGG	TGACTTGAGT	TAACACCTGC	ACGCGAGGCA	480

GCAAGAATT TT TAATCAITTTG GATTTCCCTCC GATTTTATTT TTTAATAGAC AAGATTAAAGC 540
 GGTTCCTTCA GCAATGTAAG CATAAAGGGC TTCTGGTTCA GAAATTTTTG ATAGGTCCTC 600
 AAGATGACCA TTCTCTGTGA AGAAGTCCAT TAACGTAGCA AGAATGTTCG TTGACTTGA 660
 ACTTGAATTA TTGATGATA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCCCAAT 720
 CATATTATGG AAGTCAACCG GTTCTCTTAA TCGAACCAAC ACCACTTCTC CAGCTAGATT 780
 ATGAACAATA TCTGTGTGAG GAATCATTAC ATTGCAAGT CCTTTCCTAG AAATCCATA 840
 TATAAACAGG TTGGAATGA CTTTTCACGC GTGATCAAGG CTTCACGATA AGTTGGAGTG 900
 ACAATTTCTC GTTCTTCCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC 960
 GCTTCTAAGC AAAACACAAG GTTTTGTCA AAGAAATAT CTAAATACCAT AAGGTTTTC 1020
 CTCTTTCCA TTAACTTTAT GCTATAAGTA TAACACTATA TGAATCGTT GTTAATTAAT 1080
 TTTCTATCTT TTTTGTCTCT TTTTATATAT TTTTGTCTTG TTTATAGTTT GTTATATAAA 1140
 AATAAACACA CAACAAATA CTCCAAGCAT TTTTCTGTTC TAATACTCAA TGAATAACAA 1200
 AGAGCAAACT AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTTGAGGT TGTAGATGAA 1260
 ACTGACGAAG TCACCAAAA CATGGTTTTG AGGTTGTAGA TGAAACTGAC GAGCAACAG 1320
 CCATACATAC GGTAAAGCGA CGCTGACGTG GTTTGAAGAG ATTTTGAAG AGTATAAAAA 1380
 CTAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTATATATAA TTTCTGTGA 1440
 ACAAGGAAG GCATTTCTGA TAACATTATC TTCATCCATA CTCAGAAGC TGAGGAAGGC 1500
 TTTCTGCGGA ACTTCAACTG ATCCGATGGA TTTTATCGGT TTTTATCCAG CTTTGTGTT 1560
 TTTCAAGGAT TTACGCTTAC GAGAAACGTC ACCACATAA CATTTAGCAA GTACGTTCTT 1620
 ACGAAGGCC TTGATATCAG TACGAGCGAC AATCTTGTGT CCAATAGCGC CTGATGTTG 1680
 AACTTCAAT TGTGGCGAG GGATGATTTT CTGAGTTTA TCAACGATGA GTTTCCACG 1740
 TTTGTAGGCA AAGTCTTGT GAACGATAAA GCTGAGGCA TCCACCTTAT CTCCATTGAG 1800
 AAGAATATCC ATTTTCAACA GCTTAGATGG GCGATATTCT GACAAATCGT AGTCAAAAGC 1860
 TGCATAACCA CGTGTGGAAG ACTTAAGTTT ATCAAGGAAG TCAAGACAA TTTACGCAAG 1920
 AGGAATTTGA TAGATAACAT TGACACGGTT ATCATCAATA TAGTCCATAG TCACAAAGTC 1980
 CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCTGTG GTACCATGAT 2040
 TTGCGCCTTG ACATAAGGCT CTTCAATGGT CGCAATCTTA GTTGGGCTCG GAAACTCAGA 2100
 TGGGTAGAC ACATCCATAG ACTCACCGCT GGTCAAAATA ACTTTGTAAA TAACAGACGG 2160
 AGCTGTATG ATGAGGTCAA TATTGAATC ACGCTCTAAA CGTTCTGGA TAACATCCAT 2220

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ATGGAGAAGT CCAAGAAATC CACAACGGAA ACCAAATCCA AGTGCCTGAG ATGTTTCYGG	2280
TTCAAACCTGA AGACTAGCAT CATTTCAGTTG CAATTTTTCAC AGCGCTTCAC GCAGGTTCAT	2340
GTACTTGTTT GATTCGATGT GGTAGAGACC CGCAAAGAGC ATAGGATTCA TCTGCTTATA	2400
ACCATGTAAAT GGTTCGCGC CAGGATTTGGT TGCCAAGGTA ACGGTATCAC CCACACGAGT	2460
ATCCTTGAAAC GTCTTGATAG ACGCCGCAAT GTAACCAACA TCACGAGTCG CAAGGAAATC	2520
ACGACCACCC GCTTTTGGTG TAAAAATACC GACTTCGGCC ACATCAAAGG TCTTACTATT	2580
GCTCATGAGC TGAATCTTAT CACCAGGTTT GACCACTCCG TCCATGACAC GCACTTGGAG	2640
GATAACCCCA CGGTAAAGCAT CGTAACAGAG GTCCGAAATC AAGGCCCTAA GTGGCGCCGT	2700
CACATCACCC GTTGGTGCTG GTACTTTTTC TACAATTTGC TCGAGGATTT CTTCATATCC	2760
AATACCAGCC TTGGCAGAG CCAAAACTGC TTCACTGGCA TCCAAACCAA TCACATCTTC	2820
AATCTCTGTA CGCAGCGCT CCGGATCTGC AGCCGGCAGG TCAATTTTAT TAATGATAGG	2880
CATGATTGCC AAATCATTTAT CCAAAGCCAG ATAAACGTTG GCAAGAGTTT GAGCCTCAAT	2940
TCCTTGAGCC GCATCGACCA CCAAAATAGC ACCCTCACAG GCAGCTAGCG AACGTGAATC	3000
TTCATAGGTA AAGTCAACGT GCCCTGGTGT GTCAATCAAG TGGAAAATAT AAGTTTCCCC	3060
ATCTTTTGCA GTGTAAATCA ACTCGATGGC ATTCAACTTA ATAGTAATTC CACGTTCCCG	3120
CTCTAGCTCC ATGCTATCCA AAAGCTGGGC CTGCATTTCG GACTTTGAAA CCGTCTCTGT	3180
TTTTTCCAAA ATGGCGTCTG CTAGAGTTGA TTTTCGGTG TCAATATGGG CGAATAATGA	3240
GAAGTTACGG ATCTTCTCCT GTCGTTTTTT CAATCTTCT AAGTTCAATG TCTCTTCCCT	3300
TTCAGGGTAT CTATTTATTA TAAATTGTTT TTGATAITTT GACAAGACCA TACCCTGCTA	3360
GGAGTACTAA TCTTCAGCGA CAAAGCCGTC ATTTTCGATA AAGTGGTGTT CTGTCAATCC	3420
TTGGTCTGTA AAGACAATCC CGTGAAGGAC ACCACCATAA ACAGCTCCCT CATCCATTCC	3480
AATCTTGCCA TCCTCTGTAG TCCAAAGCTC AGATGTACCG CGTTCTTGCT GTAACAAACC	3540
ATAGACCGGT GTATGACCGA AGACAATGGT TTTTCAGTA TGATTTTCAG CTCGTTGGAA	3600
TGGTTTCTTA AGCCATACTT TTTTATAATC TGTGTGTTCA TGCCAGTCGT CCAAGGTCAA	3660
ATCAATACCT CGGTGAACAA AGATATACTT GTCTGTCTCT ACTACAAATG GCATTTGACG	3720
AATGAATTCC ACCAAGTCTG CCGCTTCAGC GGCACCCGCG TTGGCATCTT CTACTCCATC	3780
AACGTGTGCA TCCAAGGGAC GACCTAGGAT AGAGTTAATG GTGTATATCC CACCATTTGG	3840
ACTATAATGG TCATAACTTT CTCTCTGGGT ATCTAGCCAA GTCAAAAACA TATACTCGTG	3900
GTTCCTGGAC AAACAGATAG CCCCTTGATT GTCCACCAAG TCCTTGACCA TTTCAAGAAC	3960
ACGGTGACTA TCCTCAGCTC TGTCAATCAA ATCACTAGA AAGAGCAACT GGGGCTGACC	4020

ATCCCAGGTT	TTGAGAAAGT	CTTCCAGCAT	CCGAGCTTTT	CCGTGAACAT	CTCCAATPAC	4080
ATAAATATCT	GTCACTCTAT	TTCTCCCTGT	TTCTCAACAA	TTCTCTTGCT	TGCGTCAGGG	4140
CTGCTTCTGT	CACATCATCA	CCTGCCAACA	TCTTGGCAAC	TTCTCTCCAT	CGCTCTCGA	4200
CGGTCAAGAG	ACGAACAGTC	GAAACCGTTC	AATGGTCAAT	ACTAATCTTC	TCAATAAAGA	4260
ATTGATAATC	TGCAATCGCA	ATTACTTGTG	GCAATGGGA	GATAGCCAAA	ACCTGACCAT	4320
GCTGACCAAT	TTTATGAATT	TTCTGAGCAA	TAGCTTGAGC	AACACGACCT	GAAACTCCCG	4380
TATCCACCTC	ATCAAAGACA	ATGCTAGTCT	TGCCTTCTTT	ACGTGAAAAG	GCAGACTTAA	4440
TGGCTAACAT	GAGACGAGAT	AATTCCTCTC	CAGAAGCAAC	CTTAAACAAG	GGTTTAAAGT	4500
CTTCTCCAGG	GTCTGGTTGAA	ATATAAAACT	CAACCATTTT	ATTTCCCTCA	CGACTGAATT	4560
TTCCCTTACT	AAAAAGAAC	TGAAACTGGG	CTTTTCCCAT	ATAAAGATCT	TGCAGTTCTT	4620
GTTTAATCTC	AGCTTCGAGT	TGCTGAGCCA	AATTATGAGC	AGCAGAAGCA	AGTTGACCTG	4680
CCAAATTGAC	AAGATTGACT	TCCAACCTCT	TAAGCTCTGC	TTCCATGTCC	TCAGACGAAA	4740
GATTATTGCC	TGTCAGAGA	TTGTATCTCT	CCGTAATCTT	GGCAAAATAA	AGCAAAACAT	4800
CATCAACAGT	CCCACCATAC	TTACGAGTAA	TAGTATGAAG	GAGGTCCAAA	CGATTCTCAA	4860
CCTGCATCAG	GCGATTGCCA	TCAAAATCAA	GCTCCTCAAT	GATAGCTTTC	AAACGTTTTC	4920
TAATGTCTTC	TAAAACATAG	TAGGTCTCAG	ACAGATAGCT	TGAAATTTCA	CGGTATTCAG	4980
GATCATATCT	TTCCGACACTT	TCCATGTCAT	TCATAGCTGA	ACGAACATTG	GCCAGACTTG	5040
AAAAATCTTC	ATTGTCCAAAC	ATACTGTAGG	CATTGGTCAG	TGTATCCGCA	ATATTTTTGT	5100
GGTGTAGGAG	TTTATCTCGC	TCTTGATTGA	GAGCCAAGTC	TTCTCCAGCC	TGCAAGTTTG	5160
CTGCCTCAAT	CTCTGCCATT	TGAAATTTCCA	ACATTTTGAT	ACGTGCGCTG	TGTTCTCTGT	5220
GGTTTTTCTT	GACTTCCAGA	ACCTGCTTGC	GCATTTTTCG	ATAGGCATCA	AAATCGTTT	5280
GATAGGTTTC	TTTCAAGTCC	CAAAAAGCGG	CATCACCAAA	TTCTATCCAA	ATCTGGATAT	5340
GCAGTTGGGG	ACGCATTAAAC	TCCTCATGCT	CATGCTGACC	ATGAATATCT	ACAAGATGTT	5400
GCCCAATAGC	TGCAAAACA	GACAGATTAA	CCATCTGACC	ATTATACAGG	CTGATACTAC	5460
GACCATTTTG	CAAGATTTC	CGACGGATGA	TAATTTCATC	ACCTAATTCT	AAACCTTCTG	5520
CATCAAAAT	TTCTGTGAAA	AGACGACTAT	TCTCAACTGA	GAAAAGCCCC	TCAATCTCTG	5580
CCTTTGGTGC	ACCATGAOGA	ATAACATCTG	TGCTGCGACG	AGCTCCCAAC	ATCATATTCA	5640
TGGCATCAAT	GATAATGAC	TTCCCTGCAC	CCGTTTCACC	AGTCAGGACA	GTCTCCCTCT	5700
TTTCAAAAT	GAGGAAATA	GCCTCAATAA	TGGCAAAGTT	TTTTATCGAA	ATTCAAGTA	5760

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ACATATAGAC CTACCAATT TTTACTTGTT CAAAGATTTC CTCTGCTAGA CTTCCACTTC	5820
TGGCAATGAC TAAATCGAG CTATCATCAG TCAACAGCT AAAAATCTTG TCTGCAAAAG	5880
TCTCGATTAA CTGAGCTTTT ACAAAGCCG TATTTCTGG AATAACTTGG AGATTGATCA	5940
TCTTATCCAT CAATTGAGCC GATTGATAT TGTCTTCAGC CAGTTGACGA CTTTTACGA	6000
TTGATTTTGG CAATCTGAG ACATAGTGT TGTCTCTCAA AGGAATTTTG ACAAACCTA	6060
ACTCTTTGAT ATCTCGGAT ACCGTGCGCT GAGTGGCAGT GATACCTGCT TCTTTCAAA	6120
GTCTACAAAT TTCTCTTGC GTGCGATTT GATAATCTGT CACCAATCTT CTAATTTTTT	6180
CAAGTCTCTC TTTTATATC ATTTTAAAT TGACTATGGC CCCTCTCTAC TGCTTCTTTA	6240
ATCTCAGCAA GAATCTGAT GCTTGTGAC TTTTCTTTT TCAAAACGC TAAAAATCA	6300
ATATTTCCAT GTCCACCTTG GATGGGAGAA AAGTCCAAGC CAAGGACTGA AAAACCTACC	6360
TCTACTGCCA TAGCTGTAC AGATTCAAGC ACATTCTGAT GAACCTTAGC ATCTCGAATA	6420
ATTTCATTTT TCCCAATCTG CTCACGTCTT GCCTCAACT GAGGTTTGAC AAGGCTACC	6480
ACCTGACCTT GATCAGCAA GACACGGTGC AAGGCTGCCA AATCAGACT AAGGGAATG	6540
AAACTCACAT CAACTAGGC AAGCTCGGC TCCTGCTCGA AATCACTCTT TTCAGCATAG	6600
CGGAATTTGA ACTGCTCCAT GCTGACAACT CGTGGTCTT GCGGTAACTT CCAAGCCAC	6660
TGATTGTGAC CAACATCGAC TGCAGAGACC AACTGGCAC TATTCTGTAG CATGACATCG	6720
GTAAACCTC CAGTAGAGGC CCCGATATCA ATCGTAGTGC CGCCATCCAC CGACAAATCA	6780
AAGACCTGCA AGGCTTTTC CAGTTTCAA CCACCACGC TGACATACTT GAGTTCTCC	6840
CCCTGAGTT TTAATTCGGT GTCATCTGGA ATTTCTCTC CTGGCTTGC AAACCGTTCT	6900
CCATTAAGGA CTGCTACGAC TAGGCCAGCC ATCACACCTC GCTGGCCTG CTCTCTCGTT	6960
TCAAAACAACC CCTGTTTATA AGCTAGTACA TCCACTCTTT CCTTAGCCAT TGATTCTCAA	7020
ACTTTCTACT ACACCTACAA TCGATTCTGT TTCAAAGGA AGCTGCTGGG CAATTCCTC	7080
TAAATTTTCA TTAGCTTGAT CCAGGGTTTG GTTACAAAG GCAATGGACT CTTCCAAGCC	7140
CAACAGGGCA GGAATGGTGT ATTTTCTGCT CTGCAGATCC TTTTGAGGTG TCTTGCCGAT	7200
TTCTCTAAAA CTAGCTGTCA CATCCAGTAC ATCATCTCTG ACTTGAAAG CAAGTCCAAT	7260
CAATTTCACCC ACAGTTTTCa GCTTCACTG CATTTGAGT GACAATTGAC CTATAATAGC	7320
TGCGCTTGG AAGGATAGG CTAGTAACCT CCGAGTCTTA TTGGCATGAA TAGTCTGAAG	7380
TTCTTCCAAA GACAAAGTGT GGTGTTCCGC TCACATATCC AAAACTTGCC CTGCTACCAT	7440
ACCCAGACTA CCGTAGGCAA GGGATAAGTT GGCATCAAG TCCACCTTAA TCTGACTTGG	7500
CAAAATCTGCC TGCGCAATCA AGGCATATGA GTCTAAGAT AAGGCATCTC CAGCCAAAAT	7560

GGCCATAGCT TCACCGAATT TCTTGTGATT GGTTAACGCG CCTCTTCGAT AATCGTCATC	7620
ATCCATAGCA GGAAGGTGAT CCGTAATCAA GCTCCCTGTA TGAATCATCT CTAAGGCAGT	7680
AGCTACCTGC GCCTGAGCAG GTTTGATGGT AACCTGCAAG GCTTCCAGAA CTCTTAACAA	7740
GAGAAAAGCG CGAATACGCT TGCCACCAGC ATGAATAGAA TAGAGAACAG ACTCCCGTAA	7800
ACTAGAGGCA AACTGCTGGT CTCCATAAAA ATCTTCCAAA CGCGACTCGA CAAGAGCTAA	7860
TTTTCTTCGC TTTTTCATTC AAAATCACTT TCTGTTCGGT CTCTCTGCAT GACCTTGACC	7920
AAGGTCCTTT CAGCCTGTC CAGCCTAGCT TGGAGCTCTT TTGACAAGAC CATGCCCTTT	7980
TGAAGGCGAG TAATCGCATC TTCCAGAGCA ATTTCAACAT TTTCCAAAC TGTGACAAAG	8040
GTTCAGATT CTGCTAGATT TTCTCAAAAT TTCTTTTGGT TTGACATCTT TAACCTCTAA	8100
TTCTACTTGA CCATCTCGCA TCAAAAGCGT TACTTGGTCT TTTTCTCTCA AACTCTCAAC	8160
CGAATCTACA ACGGACTCTT CTTTTTTTCG AATAGCATAA CCACGCGCCA CGATTGCGCT	8220
AGTATCGAAC ATGAGCAJAG CTTCGGAAG TCGCTTGGCC TCAGCAACTT TGGCGTCATA	8280
AACTAACGCC ATTTGGCTAC CTAAGAGCTT GTCCAACTGT CTAAACGGT CTTGATAGCG	8340
TTGGATTTTG GTAACAGGTG ATAATTGTAC TAATTGATGA GTTCTTGCTT GAACTAATTG	8400
TTTGTATGCA GAAATCCGAG TTGCAAACT TTGTTTCAA CGCAGTTGCA GTTGTCCAA	8460
GCCTTGCAAA TAACCGTCAT ACAAGCGCTC AGGTGTGCTA AAGATAACAG ACTGACTGCA	8520
TTTTTTTCAA GCTCTTGT TCTTAGATAG AACATTTCGG ACTGCGGTTA CCATCCGTTT	8580
TTCTGTGATT TGCAAAAGAG CTAATACATC CAACTTGGTC ACAGGTGTG CCAGTTCAGC	8640
CGCCGCTGTT GCGGTTGAG CGCTCGATC TGCCACAAA TCTGCCAAG TCACATCGGT	8700
CTCATGCCCC ACACTAGAGA TAAGTGCAA ACGAGATTCA AAATAGTCTC GTACCACAA	8760
TTCTTCGTTA AAGGCCAGA GATCTCTCAAT AGAACGCTT CCACGACCAA TAATGAGCAA	8820
ATCCAAATCG TCCGTTGAT TAGCAGCGCG AATATTTCTA GCAATTTCTT CCGCAGCCCC	8880
TTCACTTGA ACCTTGCTCG GATAAAGAAG GATGTCAACA CCTGGGAATC GCTGCTGAC	8940
GGTCGTGATA ATATCTGAAA TAACGGCTCC ACTACGCGTG GTTACTACAC CAATTCTCTT	9000
AGAAAAATGG GGCAGAGCTT GCTTGAAGCG TTCTTGAJAC AGGCCCTCTT CTGTCAATTT	9060
TTTCTTAAGT TGTTCAAACT GAATCGCAAG CGCCCCAAC CCATCAGGCT CAGCTTTTTC	9120
AATGATGATG GAGTAGCTAC CACTTGGTTC ATAGACCTGT ACAAGGCCAA TCACATTGAT	9180
CTTCATTCCT TCTTCCAGGT CAACCCCTAA TTCTGTATAA ATCCAGACCC AGATGGTCTGC	9240
TTGAATAACT CCATGGTCAT CCTTAGGGA GAAATATTGG TGAGTAGGTC GTTACAGAAA	9300

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GTGGAAACT TGACCAGTTA AATAGACCG TTCCAGTAT GGGTCTTAT CGAATTCA?	9360
TTTCAGATAC TTGGTCAAAG TTGTTACCGA TAAATACTTT TCCATCTCCA CCTACTATTG	9420
ATTTACTTGC TCTTTCATGG GTATTATTAT ACCAAAAATA TGCCFAAAAA TCTCCATTTA	9480
TGTACCATTG TGAGGGAAAA ATAGAAAAAG GAGGCAAGGC CTCACATGT GATTATTTCG	9540
TGTTTCGAGC TTCTTCCAAA ATCTTTCGAA TCTTGGTCGT CAACAGGTCG ATAGCCACGG	9600
TATTGCTAAC CCTTTCAGGA ATGACGATAT CAGCATAACG CTTAGTTGAC TCGATAAACT	9660
GGTGGTACAT TGGTTTGACC ACACCTAAGT ACTGGTTAAT AACGCTATCA AGGCTACGGC	9720
CACGCTCCTC CATATCACGC TTGATACGAC GAATAATGCG CACATCGTCA TCCGTATCCA	9780
CAAAAATCTT GATATCCATC AAATCGGCGA GACGCTGTCT CTCGAAGACC AAAATACCGT	9840
CAACGATAAA GACATCTTGA GGTTCCTGAC GATAGTCTCT GCTACTCCGT GTATGCTCTG	9900
TATAGTCGTA GGTGGGAGT TCCACGGGAC GCGCTGCCAA CAATCTCTTA ATCTGCTCGA	9960
TCATCAAGTC TGTATCAAG GCAAAAGGAT GGTATAGATT GGTTTTGACG G	10011

(2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 5365 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CCTGTGGTCT TAAAAATAGA AGACAAAGAA CAACTGTTG GAGGCTTTGT COTTCAGGC	60
TCAGCCCAAG AAAAAACCAA AACAGCTCAA GTTGTGGCTA CTGGACAAGG TGTTCGTACC	120
TTGAACGGTG ACTTGGTTGC TCCAAGTGTT AAAACTGGAG ATCGTGTCTT AGTTGAAGCC	180
CACGCAGGTC TTGATGTCAA AGATGGCGAT GAAAAATACA TCATCGTAGG CGAcTAACAT	240
TTTGCAATC ATTGAGGAAT AGAAGGAGAA AGTAAGTATG TCAAAAGAAA TTAAATTTTC	300
ATCAGATGCC CGTTCAGCCA TGGTTCGTGG TGTTCGATATC CTTCGACAGA CTGTAAAGT	360
AACCTTGGGA CCAAAAGGTC GCANTGTCT TCTTGAHAAG TCATTGCGTT CACCTTTGAT	420
TACCAATGAC GGTGTGACCA TTGCCAAGA AATCGAATTG GAAGACCATT TTGAAAAATAT	480
GGTGCTAAG TTATGATCAG AAGTAGCTTC TAAACCAAT GATATCGCAG GTGACGGAAC	540
TACGACTGCA CAGTCTTGA CCCAAGCTAT CGTCCGTGAA GGAATCAAAA ACGTCACAGC	600
AGGTGCAAA TCCAATCGGTA TTGCTGCTGG GATTGAAACA GCAGTTGCCG CAGCAGTTGA	660
AGCTTTTGAAA AACAAACCCA TCCCTGTGTC CAATAAGAAA GCTATCGCTC AAGTTGCACG	720

CGTATCTCT	CGTTCTGAAA	AAGTTGGTGA	GTACATCTCT	GAAGCAATGG	AAAAAGTTGG	780
CMAAGACGGT	GTCAATACCA	TCGAAGAGTC	ACGTGGTATG	GAAACAGAGC	TTGAAGTCGT	840
AGAAGGAATG	CAGTTTGACC	GTGGTTACCT	TTCACAGTAC	ATGGTGACAG	ATAGCGAAAA	900
AATGTTGGCT	GACCTTGAAA	ATCCGTACAT	TTTGATTACA	GACAAGAAAA	TTTCCAATAT	960
CCAAGAAATC	TTGCCACTTT	TGGAAGAGAT	TCTCCAAAGC	AATCGTCCAC	TCTTGATTAT	1020
TGCGGATGAT	GTGGATGGCG	AGGCTCTTCC	AATCTTTGTT	TTGAAACAAG	TTCTGTGAAC	1080
CTTCAACGTA	GTAGCAGTCA	AGGCACCTGG	TTTGTGTGAC	CGTCGCAAG	CCATGCTTGA	1140
AGATATCGCC	ATCTTAACAG	GCGGAACAGT	TATCACAGAA	GACCTTGGTC	TTGAGTTGAA	1200
AGATCCGACA	ATTGAAGCTC	TTGGTCAAGC	AGCGAGAGTC	ACCGTGACA	AAGATAGCAC	1260
GGTTATTGTA	GAAGTGACAG	GAAATCCCTGA	AGCGATTCTCT	CACCGTGTG	CGGTTATCAA	1320
GTCTCAAAATC	GAAACTACAA	CTTCTGAATT	TGACCGTGAA	AAATTGCAAG	AACGCTTGGC	1380
CAAAATTGTCA	GTTGGTGTAG	CGGTTATTAA	GGTTGGAGCC	GCAACTGAAA	CTGAGTTGAA	1440
AGAAATGAAA	CTCCGCATGT	AAGATGCCCT	CAACGCTAAT	CGTGACAGCTG	TTGAAGAAGG	1500
TATTGTTGCA	GGTGTGGAA	CAGCTCTTGC	CAATGTGATT	CCAGCTGTGT	CTACCTTGGA	1560
ATTGACAGGA	GATGAAGCAA	CAGGACGTAA	TATTGTCTCT	CGTGCCTTGG	AAGAACCCTG	1620
TCCTCAAAAT	GCTCACAATG	CAGGATTTGA	AGGATCTATC	GTTATCGATC	GTTTGAAAAA	1680
TGCTGAGCTT	GGTATAGGAT	TTAACGCAGC	AATCGGCGAG	TGGGTAAACA	TGATGTATCA	1740
AGGTATCATT	GATCCAGTTA	AAGTGAGTCC	TTACGCCCTA	CAAAATGCAG	CHCTGTAGC	1800
CAGCTTGATT	TTGACAACAG	AAGCAGTCCT	AGCCAATAAA	CCAGAACCAAG	TAGCCCCAGC	1860
TCCAGCAATG	GATCCAAGCA	TGATGGGCGG	GATGATGTAA	GCTTTCTATA	GAAACAACT	1920
TATAAAAAATC	ACAAAAGGAG	GGAAAGACTA	ACCTTCTTTT	TTATAGGCTC	TTTGTCAACT	1980
GTATGGGGTT	GAAGTCAGCT	AAGCTCGAGA	AAGGACAAAT	TTCTGCTCTT	CTTTTTTGAT	2040
GTCTAAAGCG	ATAAAAAATCC	GTTTTTTGAA	GTTTTTCAAAG	TTTGGAAAAA	CAAGGCAAT	2100
GCGCTTGATA	AGTTTGATGA	GATTATTGGT	CGCTTCCGGT	TTGGCGTTAG	AATAGCTAG	2160
TTGAAGGGCG	TTGATAATCT	TTTCTTTATC	TTTGAGGAAG	GTTTTTAAAG	CAGTCTGAAA	2220
AATAGATGTA	ACTTGCTTAA	GATTGTCTCT	AATAAGTCCG	AAAAATTTCT	CCGGTCTCTT	2280
ATTCTGAAAG	TGAAACAGCA	AGAGTTGATA	GAGCTGATAG	TGATGTTTCA	AGTCTGTGTA	2340
ATAGCTCAAA	AGCTTGTCTA	AAATCTCTTT	ATTGGTTAAA	TGCATACGAA	AAGTAGGACG	2400
ATAAAATCGC	TTATCACTCA	GTTTACGCTT	ATCCTGTGTG	ATTGAGCTCC	AGTAGCGCTT	2460

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GATAGCCTTG TATTCATGGG ATTTTCGATC CAATTCGTTT AATAATTGAA CACGCACAG	2520	
ACTCATAGCA CGCTAAGAT GTTGTAACAT GTGAAGCGA TCCAACACGA TTTTAGCATT	2580	
CGGGAGTGAA ACAGCTGGG AGACTGTTT AGCCTGAGCC TAGAAATTG AAAGCGAAGC	2640	
TGTTTAGCCA AGTCATAGTA AGGACTAACC ATATCCATCG TAATGATTTT CACTPGACAA	2700	
CGAACGGCTC TATCTAGCG AAGAAAGTGA TTTCGGATGA CAGCTTGTGT TCTGCCTTCA	2760	
AGAACAGTGA TAATATTAAG ATTATCAAAA TCTTGCGCAA TGAAACTCAT CTTTCCCTTA	2820	
GTGAAGGCAT ACTCATCCCA AGACATAATC TTTGGAAGCC GAGAAAAATC ATGCTCAAG	2880	
TGAAGTTCAT TGAGCTTGGG AATGACAGTT GAAGTTGAAA TGGCCAGCTG ATGGGCAATA	2940	
TCAGTCATAG AAATTTTTTC AATTAACTTT TGAGCAATCT TTTGTGTGAT GATACGAGGG	3000	
ATTTGTGTAT TTTTCTTAC CAGGGGAGTC TCAGCAACCA TCATTTTGA ACAAGATAG	3060	
CACCTTGAAC GAGCTTTCT AAGGAGAATT CTAGAAGCA TACCAAGCTG TTCAGATAA	3120	
GGAATTTAG AAGGTTTTG AAGTCAATAT TTCTCAATT GGTTCGCCA CTCAGGGCAA	3180	
GATGGGGCGT CGTAGTCCAG TTGGCGGATG ATTTCTTGT GTGTATCCTT ATTGATGATG	3240	
TCTAAAATCT GGATATTAGG GTCTTTAATA TCGAGCAGTT TTGTGATAAA ATGTAATTGT	3300	
TCCATATGAA TCTTTCTAAT GAGTTGTTTT GTGCTTTTTT ATTATAGGTC ATATGGGACT	3360	
TTTTTCTTAC AACAAAATAG GCTCCATAAT ATCTATAAGG GATTACCCA CTACAAATAT	3420	
TATAGAGCCG AAAATTCACA TCTAATATAT CGAGACTACT TTGAATGAA ATTAATAAAA	3480	
TTATTAAAGG ATGACACAAA AGTTTTTGAA AAATCTACAT TCAAAATTGT AGAAGGATAT	3540	
AAAATATACC TGACAGAAATC TAAAGAATCT GGAATTAAAC AAATGGACAA TGTCATAAAA	3600	
TATTTTGAGT TTATTGAATC TAAAAGTATT GCTTTATATT TTCAAAAACG ATTAATGAG	3660	
CTGATAGATT AATAGCATT TTCTCTGTTG AGATATTGTT TTTAAAATAT TGTAATAAT	3720	
GATTGATGCT ATGTGAAAT ACAAAAAAAT GTTTTTGATA CGAAGTTGAC CTGTATTTTT	3780	
TATACTAATC ATTTTCGTAT TTTTGTATTT AAACGATATA AGTTTGTGT AAACCTACAA	3840	
GGAATAAAGA CATTAATAAA TAACAGTATA TCTATTGTT TTATATATTT TACGAATCT	3900	
GCATAAATCT CTTTCTAGTA ATGTGTGTA ACTCTGCTAT AATAGATTTA TTCTTTTTTG	3960	
TGTTTACACA ATTTATTTTA TAGTACCAA AAAGTCCAG ATTTGTGTC TGACCTTTGA	4020	
CAACTTTACC GATTTCTTAG TTCTACATAG CGCTTGTACC AAATGTTTAC ATAGGCTTCT	4080	
GAGAAAGGAC CACGTCATT GTTAATCCAA TCAACAAGAA TTTTGACATG TTCTTTTAAA	4140	
ATAATAGTCCA AGTCATCAGA ATAATTCATT TTGCGTTGT GACGCTCGTA CTCTTCAACG	4200	
TCCAAGAGAC GTTTTTCGCC ATCTGTAAAA ATTTTAACAT CCMAATCGTA ATCAATATAC	4260	

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TTCAGTGCTT	CTTCATCCAG	ATAGTAGGGG	CTAGCCATAT	TGCAATAGTA	AGAAGTICCA	4320
TTATACGAA	TCATGGCAAT	GATATTAAAC	CAATATTTCT	TGTGAAGTA	AACAATAGCC	4380
GGTCTCGAG	TGACCCAAAG	ACGACCATCA	CTTTCGGTAA	CAAGTGTATG	ATCGTTGACA	4440
CCAATAATGG	CGTTTCTGT	TGTTTTAGT	ACCATGGTGT	CCCGCCAAGT	TCGGTGGAGA	4500
CTCCCATCAT	GCTTATAACT	TTGAATTGTA	ATAAAGTCGC	CTTCTTTTGG	AAGCTTCATA	4560
ACTAACCAAC	TTCTACAAT	TTATAAGTTT	ATCATTTACT	ATTGTACCAT	AAAAATTACC	4620
AAAACTGTG	AATTTCACTT	GGAAATATTA	AGATATTCT	CTAAGAGCGC	TTUCTATATC	4680
CGAAAAATCG	TAGCCCTTTC	GTGCTAAAC	TTGAGTAA	CGCTGCTCA	GTTCGTATCC	4740
TTCATACTTT	CGGGCATACT	TAGTATATTG	CTTATCAAGT	TCCTTGAAGA	TGAGTTCTCG	4800
AGTCGTTCT	TCATCAACTT	GACTATCCAA	TTGCTCAAAG	GCAATTTTAG	CATCAAAATA	4860
AGAGAAGCCC	TTGTTAGTCA	AGTTCTGGAT	AATCTTATCT	TGCAGGGCAC	GAGCTGGAAG	4920
TTTTCCCTCA	TATTTTTTCA	ATAGTTTATT	GGCTACACGT	TGAGCAACTT	CCGAAAAATC	4980
AAAATCATTC	AAGATTTCCT	CTATAGTAGA	TTTTGAAATT	CCTTTTGTG	CTANTTCTG	5040
AGTCAGTACA	TAAGGTCCCT	TGCTCCTGA	AAGTTGATTG	GCAATTGATGA	TAGCATAAGC	5100
GTACTGGCTA	TCATTAATCC	ACTTCTCTTC	TTTAAGATT	GCAATGACTT	GAGAAACGAT	5160
GTTTTCATTA	ATATCATATT	TTTTCAGATA	TTCTCTGACC	TCTTTTTCAG	TACGTGCTTT	5220
AAAGGATAG	TGCTAGAGGG	CCAGATTCTT	ACCATAGAA	AATTGAGCAA	AGTCTTGAAT	5280
CTCTTCAAT	TCTCTTCGC	TTATCACCTT	ATCTCTCGAT	AACATAAAAC	GAACAATTGT	5340
GTCTTCGGTG	ATATAGCATT	TGTCG				5365

(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3636 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TTTTCGAGAA	GAAGTTGAGT	AAAGTCTTTA	TCAAAGAGAA	TGACTTCGGT	ATTGGAAGTC	60
ACATTAGGTT	TTATTCTTAC	TTTACTAGCG	TCCGCCCTAG	CATTTTCTAA	ATCTTTAATC	120
TCTTCTGTTG	CCCTATTTAT	AGCCAGCTGA	ATAACTGCTT	GAGGATTTTC	ACTCAGTCCA	180
TGAAGCTTAT	CGTCCACCGA	AGTATAAAGA	CTCGAATGCA	TGACTTGTAA	AATAATCAGA	240

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GTCAATTGTAG AAAAAATCAG GGTGAAGACA CGAAGTTCG GGATAAAATA ACTAAAGTCA	300	
TCGCGCATACC ATGT"TTTTT" AAGTTTACTG AACATCTTTT AAAGATACC CAACACTACG	360	
CAAAGTTTGC AAATTCTCTG CAAAAGTGGT TCCCTTTAAT TTCTTACGGA CTTTGGAAAC	420	
ATAGACTTGC ACAACCGAAA TCCTGTATC ACTATCAAAT CCCCATAGAC GGTCAAAAAAT	480	
CTCGCTCTTA GCGAAAAATCA CATTTTGATT TTGAAGGAAA TAACTAGTA AATCGAAGTC	540	
TTTCCCGCAG AATTGACAG GAGTATCTTC AACTTTAAGG GTATTGGTTG ATAAATTAAC	600	
CACGATATTC CCATAAGTCA AGGTGTTTTC ATTAAGCTTC CCTGAACGTT TGAGAAGGCG	660	
CTGAATCCGC ATTTTAAGTT CTCTAGGTA GAAAGGTTG GTCAGATAAT CATCCGCTCC	720	
CAGTTCAAAT CCATGTCCCT TGTCAATCAA ACTTTCCITG GCAGTCATAA TCAGAACTGG	780	
TGTGTAATT CCCTTTTCAC GCAATTCCTT TAAGACTTGG AAACCAATTT TTCTGGCAA	840	
CATCAATCC AGCAAAATCA AGTCATAGAC ACCACTCTCA GCTTCGTAGA GACCTCTTC	900	
TCCATCAAAAT ACCTCGATAA CATCCGCAAA ATCGCTTAA AAGTCAAAAT CTGAATTGAA	960	
CAGACTAGG TCATCCTCAA CCAATAAGAT TTTTATCATG AGAACTCCT CTTTATTA	1020	
ACTATTATAC CAAATTGCGC TTAATAAAAA CTCAACTCTC TGCATTTTAC ATGAGATAGC	1080	
TGAGTTTCT TTTTATTTA GGTATTTTA TGCATTTCCG TATTGAAGAA CAACTGCTTC	1140	
GACTGCAGCT TTTTCAAGGC TAATCAAGTC AACACGCGCT GCAATTCCT TGATTCCTAT	1200	
ACCGATGTTA CGGCTAAGAG CAAGGTGAGA AAGTTGCGGT TCAAGAAGT CCTGTATTTC	1260	
CGCCAGCGT TGCTGAGTCT TAAATACATG AGCAGGAAGG ATAACAAGC TATCAAGCT	1320	
CATATCTCCT CCAAGGGCTG CCTTAATCCA AGCCCCATTT TCACGCGCCC AAGACCAAGC	1380	
TGTTTTCTGA GTTGCTTATG GAGCTAGGAA TTGGTAAATC CAAGCAGACA AGTCTGTGG	1440	
TTTGACCACA AATTGTCTCT TCCAAAGAAT AATCAGGTTT TGGATATTAT CCGCATCTGT	1500	
ACTGTATGCA AGAGCTGCTG CCAACTGGCG TTAAAGACA GCATCTGTG CGTGAATATA	1560	
AGTATCAAGA TAAAGTGCTA ACAAGTCTTT AGTCTCATGA TGTTCATCT CATTAATCAG	1620	
AACTTGTGAG CGAATAGCTG CTGGGAGTCC TGCAAGATT TCCTTGTGTG TTGGAAGAT	1680	
TTGGCTAGCG ACTTGACTAG CTCTGCATC ATTTGAGCGA ATCATCATCG AAACAGCCAG	1740	
CTGACGAACC AATTCACTCT CATCTGATTG TCCGCTTTA GCTTCAAAAC CAAGACGGTC	1800	
ATAGTTATGA CGAGCCAATT TAGCAACGAG TCCTTTGAGG GCTGTTCAG CATCCGTTC	1860	
TTTATCAATA AAGCGCTCAA GGGCTGAAAT CACTTGAGAA ACAGCTGAAA CCACGAGATA	1920	
AGACTCTTCC TTAGCAAGTT TATCAAGAAC TGAAGCAAG TCTGCTAAG AAATGTGCCC	1980	
TGCTCAGGCC AACAAACGAG GTTCTTGAAC AATTGCAAGT TTGCTTGTGT TATCAAGTGT	2040	

CTCTAGCTCA	GCAAGAACAG	CTGCTAACAA	GTCTCTTTGA	TAGTCGGTAA	TATAGTGGGC	2100
AGTATTTTCA	GTGTTGAGAC	GAAGAGCTCC	TTCAATTTTCA	GCAAGAAGAG	CTGCGTAGCC	2160
AGGGATTTTC	ATACTTTTCA	TTTCAAGTGT	ATCAGGCAAG	CCTTTCCAGT	TGCTATTTAG	2220
GGGACCACCC	CAGAGACGGT	TCTTGTCTTC	GTCTCTACCG	ATGAAGAATT	GTTTTGTGCA	2280
AATCTTCAAG	ACATCATTTT	CAACTTTAAC	AGTAAGAACT	GGTAACCAG	GCTGTTCCAA	2340
CCAAGAATCC	ATGAAGGCTG	CGACATCACG	TCCTGACGCT	TGACCAAGGG	CATCCCAAG	2400
GTCACTACCA	ATGGTGTTCG	TGTATTTGGT	TTTTCCTAAG	TAGGGTGTGA	AACCTTTAGC	2460
AAATTCAGCA	TCTCTTAGCC	AACGGCGAAG	CATGTGCATG	AGACGGCTTC	CTTTGGCATA	2520
GACGATAGCG	CCGTCAAAGA	GTGTATTTGAT	TTCACTTGGA	TGTTTAACTT	CGACGTGGAC	2580
AGACTCAACG	CCATCAGTAG	CGTCACGTTT	AAGAGCAAGA	GGTACTCCAC	CTGTTTGGAA	2640
ATCTTCAAG	ATATTCACAG	TTGGTTTGGT	GGTATCCACA	CAGACGTATT	CCATCATATT	2700
AGCGAAACTT	TCACTGAGCC	AAAGGTCATC	CCACCAATTC	ATAGTCACGA	GGTTCCTCAA	2760
CCATTTGGTGA	GCCAATTCAT	GGGCCACAAC	AAGGGCAACT	TGTTGACGGC	TAGCAAAATG	2820
AGAGTTCTCA	TGACACAACCA	AGTAAACTTC	ACGGTAGGTC	ACAAGACCCC	AGTTTTCAT	2880
AGCACACAGCT	GAGAAGTCAG	GAAGGCCGAT	GTGGAGAGAT	TGAGGAATTG	GGTACTTAAC	2940
TCCATAGTAA	TCTTCTTAAA	ACTGGATAGA	GCGAACAGCG	ATATCCAGTG	AGAAATCAAG	3000
ATTTGAAAGT	GGATGTGCTT	TGGTTGAGTA	GACACTTACC	AGGTTACCAT	TTTTAGTTTT	3060
AGCGGTACCC	CCTTGCAAA	CACGAGCAAC	AAAGGCCAAC	AAGTAAAGAG	ACATGCCAGG	3120
TGTTGTCTCA	AACCTCCAGA	TACCTGTTTC	CTTACGGTTT	TCAACATCGA	TTTCTGGCAT	3180
GTTTGACAAG	GCCAATTAC	CTTCTGCTTG	GTCAAAACGA	AGAGAGAGGT	CAAAAGTTGC	3240
TTTGGCTTCA	GGCTCATCCA	CACATGGGAA	AGCTTCGCGC	GCAAAATGGC	CTCTCGAACTG	3300
AGTAGACAAG	ACCTCCTTCT	TGACTCCATC	AACCTGTATA	TAAGAAGGGT	AAATCCCTGT	3360
CATGTTGTCT	GTAATTTTAC	CAGAAAAGGC	AAGAACAAT	TCAACTTGAC	CAGCCTCAGC	3420
CAATTGGATA	TGAAGGGCTT	CATTGTCTAT	GTCAACTGTA	AATGGACGAG	CTTGACCTGC	3480
AACCTTCTACA	GAGGTGATTT	CCAATCTTTT	TTGGTGGAGG	GAGATGCGGT	CACCTGTGTG	3540
TTGACCAGTG	ATGCTCACTT	TCCAGAAAAA	AGTCTTGTGT	TCACGACTCA	AACTTAAAAA	3600
TAAATCATAA	TGTTCAAGAA	CAAAATGCTT	AATGGG			3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

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(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC TCCTACAAA TAGAAACCGA	60
TATAAAATCAA TGCCCTCCAC CCTTAGACTT CCTAGTTCC TGCTCAAGC GAAACATTTT	120
TTTGAATACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAGAAACCA	180
AATGCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAAA ACAGAACTGA	240
AACAACGTTC CAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAAAC AGTAAAAATA	300
ATAAAAAATT GGAAAAACT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTC ATCACCGACA TCCCCCTTC	420
TTTGTATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAA TCCGGAAC TG TCAATCCAGA	480
TTCTACTTTT TTATTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCCTGCG GATTTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTCTCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGGTGGCCAC TTGGGTGSCA TAGAAAACT	660
TGAGACGTTT TCTTTTGCT GTCCGTGTTC GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTTGC TTAATCATCT	780
CAGGAAGTTT GTGGAGACGT TGCTTGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCACAGTT TTTCATAGTG TGGTTATCTT	900
TTTCAAGCGT ATCCCACTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCNGGAT ACGCTTGTCG TACTCACGAA TGCCCTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCATA GCACGATGG CACGCATAAC AGAGTATTTT TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGTA TCAATGCCAT CACGAGTTGT TCCAGCAACA GGACTAGCAA	1200
TAACACGGTC TTCTCCCAAG ATAGCAATGA TCAAGCTTGA TTTTCCAAAG TTAGGACGAC	1260
CAATCAAGCT AAACTTAATG ACATCTGGAT TTTCTTCTTC ATATTCATTT GGAAGATTTT	1320
CTACGATCCG ATCTAGACA TCCCGGTAC CGATTCCTAG GACAGATGAG ATAGGCAATG	1380
GTTCACCCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTGTGTGAC TCCGAGGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCGTGATC AGTAATTCCT TCTTACCAG ACACGACAAA AACGATAACA TCTGCTTCTT	1560

CCATGGCAAT TCTGCGCTGG TGCTTGATT GTTCCATGAA AGGAGCATCG ACATCATCAA 1620
 TTCTTCTCTG ATCAATCATG CTAAAGAAGC GATTGAGCCA CTCACCCGTT GCATAAATAC 1680
 GGTACAGTGT CACTCTCTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT 1740
 TAAATAGGGT TGATTTCCCA ACATGGGAC GTCTTACAAT GGCAATAGTT GGTAGGGCCA 1800
 TAATTCTCTA CTCTTCTCAA TAATTCTTTC TGTTCAAGAT TTTTCTTAGT TGAGCTTGCT 1860
 TCAGCTTGAC CAAACTGTTC TGCTAGGCGC TGACTCCAGC TTGTGGTGGC ACGCGCCCA 1920
 GCATAGTCAG CCTGAACACG GTCTAAGCTT TGGATTGCGT CAGTTGACTG TTCTTGGTAT 1980
 TCTTCTCTCA AGACAAACAT CTCTAGTGGC AGTCTCGGTT TCATATCATG ATGTGTGATT 2040
 GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT 2100
 GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATTAATCA CACCACATA GCCCAAGCTT 2160
 TCAGCTGACA ACAAGGCGTT TTGTCCAGCA AGAGCTGCGT CGACCAAACT AATCAAGAGA 2220
 CCTTCCACAC CTTGGGGTTG GAAGGTGTGG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG 2280
 TTCAAATCTC CGACAAAGAG AAGGAAACCA CGAGACTGCG GAATGGCTTC TTGAGGTACC 2340
 AATTCATACA AGGCATCTTT CTCTCTTTGA CTTCGTACCA CAATCAGAGA GTAGGATTGG 2400
 AAATTCTTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG 2460
 GGAATTCTTT GCTCTTTAAA CCTGCGCACT GAAGTATGAG CCTTCATCAA TTTAATGGTT 2520
 TCTGTATGAC ACGGTTTACT CCTCTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT 2580
 CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCCATG TTTCACTTTC GCAAAATGCT 2640
 TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAAGGT CGGTAAATTT TCCTGCATCC 2700
 GATATTGGAG AATGAOCTGC AGGATTTCOT CACGCACCCA AACGGTTGAT TGCTCGGCGC 2760
 CAATATCATC TAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT 2820
 TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG 2880
 ATGAACACCC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACCTTTAC 2940
 CCACACAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGATAT TGCTCCACGA 3000
 AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCAAAATC ATCCAAATCA ACTTGAGCCA 3060
 AACTAGCTTT CTGAGACTG GCTGGTAGAT TGATTAACTT GAGACGGTTC TTAATAGCCG 3120
 CTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTCATTA TGAAATCATC GCATAACCAT 3180
 GATTCTTAAC CAAAATCGGC TTGTAGCGTT TGGCAATATA ATCCGTAATC CCACGGAGAA 3240
 ACTGTCTACG CTCGGTGATG TACTGATFAA ACTTGAGAT ACTCGGATTT AATTCCTTTG 3300

	636	
GAGTTAAGSA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATPTTCTGGA	3360	
CCAAATCTTG ATATAAAAA CGGCTGGGTT GACGTTTGAG TACGTCTCCG ACACCTTCCA	3420	
TCTAATCTCC TCCTTTTCT ATCAGAGCTA ATAGTTCTTG CTCTTACGT TCTAGTTCCA	3480	
GACGAGTTT CTGCTGGTT TCATTCTTAT ATTCAGGATT ACTCCATTFA GGAACATTGG	3540	
TTTTTTCTGG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGG TTTCGCGCT CGATCAGAA	3600	
TTCTGATAAC GGCCTCTCT GCGGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660	
TCATGGCATA TTCTTCATTG ATATTTGCCG ATCCACCTT ATTAAGGTC AATAAGAGAA	3720	
TAATATTGAT GACTTCGTC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTCTCTTT	3780	
CTGTTTGGGT AATGGTTCCC TTGCGTGTTC GCTTGATTTC TGCTAAGAAC TGCAGGGCAG	3840	
TTTTACTTTT AGCTTCTTTG ATAAAGGTCG CTTCCTTAAG ACTAAGTCA GAGGAAACTG	3900	
GTTTTGTAGC AATTTTTC ACGATGGGTT TGGTTGAAT AACCTCGGAA ACAGCTGTG	3960	
ACTTGKCAA TTGATAGGTT TCAAACCAAG TCCATTCTTT CTCTCGGCA ATAGCAAAGA	4020	
GTTTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGCG	4080	
GAAAAATGTC CAAGTCAAAA TCATTGGCCA CTTCTCTT GAGACCAAGG TCTTCTTGAC	4140	
TGCCTAGTTC TGCCAAATCT GGAAGACTT GATTGAGTGA GACAGGTATT TCTTACCAT	4200	
CAGCACTTTC AACTTTCAAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260	
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGTAG AGGAGCATGG AGGCGTAGCT	4320	
GATAAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAA AGCAGNTAAG ATTTTCAATG	4380	
ATTTTATCAG TCTATCCATC CCAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440	
CCTTTCTACC ATTTATCCAAA AAACGTGATG TATATAAGATA AAGGCTCAGT GCCTCCTGAC	4500	
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560	
TTAGATTAAG AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTCTCTTT TTAGAGGACT	4620	
GGGTGATTG TTGGAGCAAG CTCTCTAAT CACTGACATC CTTAAACTA CGATAGACAC	4680	
TAGCAAAACG TACATAGGTA ATCTGCTCCA ATTCAGCCAA CTCTCCATG ACGAGTGAAC	4740	
CAATGCTCTC ACTTTGAATP TCATTTTCAAT TTCGACCACG GAGTTTCTGT TCGATACGAT	4800	
TGACTACCAT GTTGATTTCA TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860	
CATTAAAGAT TTTATCTCTG GAGAAATGTT CCGGTGTGCC ATCTTTTTTA ACAACCACTA	4920	
AGGTTCTTTC TTCTACTCGT TCGTAGGTTG TAAACGGTG TTGGCATTCG TCGCACTCAC	4980	
GTCTCTACG AATGGTGTTC CCTTCTCTG CTGGCGACT ATCGATAACA CTTGACTTGG	5040	
TAGCCCCACA TTTTGGACAG GGTACC	5066	

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(2) INFORMATION FOR SEQ ID NO: 80:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9607 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACCTGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCGTGTTGG TGGTCTTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACCTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTGAT CTTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAGGTTAA AAATAGGAAA CTGACGCAAG ATTTCGACGA	480
TACAAGGAGT TTTATCTTTT TCACGCAGCA TCCCGTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CGGGTAGGTC CTGCCTATCC	660
GTTTATTATTA AAATCGTGTG ATAATAGAAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCGGGTA AAACAACAAC TACTGAGCGT ATTCTTTACT ACACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TGGCTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCACGA TCACATCTGC TGGACGACA GTCGAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTCTCTT TCGTGTATTG	1020
GATGGTGGCG TTACCGTTCT TGACTCACAA TCAGGTGTTG AGCCTCAAACT TGAACAGATT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACAA AATGGACAAA	1140
ATCGGTGCTG ACTTCTTTTA CTCGTGAAGC ACACCTCACG ATCGTCTTCA AGCAAAATGCA	1200
CACCCAATCC AATTGCGAAT CGGTTCTGAA GATGACTTCC GTGGTATCAT TGACTTGATC	1260
AAGATGAAG CTGAAATCTA TACTAACGAC CTGGTACGG ATATCTTTGA AGAAGACATC	1320
CCAGCTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATFGATTGA AGCAGTTGCT	1380

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GAAACTGACG AAGAATTGAT GATGAAATAC CTCGAAGGTG AAGAAATCAC TAACGAAGAA	1440	
TTGAAAGCTG GTATCCGTAA AGCGACTATC AACGTTGAAAT TCTTCCAGT ATTTGTGTGGT	1500	
TCAGCCTTCA AAAACAAGG TGTTCATTTG ATGCTTGTATG OGGTTATCGA CTACCTTTCCA	1560	
AGCCCACTTG ACATCCGAGC AATCAAGGT ATTAACCCAG ATACAGAGCG TGAAGAAAT	1620	
GGTCCAGCAT CTGACGAAGA GCCATTTGCA GCTCTTGCTT TCAGATCAT GACTGACCCA	1680	
TTCTAGGTTC GTTTGACATT CTTCGGTGT TACTACAGTG TTCTTCAATC AGGTTTCATC	1740	
GTATTGAATA CTCTTAAAG TAAACGTGAA CGTATCGGAC GTATCTTCA AATGCACGCT	1800	
AACAGCGTC AAGAAATCGA CACTGTTTAC TCAGGTGATA TCGCTGTGTC CGTTGGTTTG	1860	
AAAGATACTA CAACTGGTGA CTCATTGACA GATGAAAAG CTAAATCAT CCTTGAATCA	1920	
ATCAACGTTT CAGAACCAGT TATCCAATTG ATGGTTGAGC CAAAATCTAA AGCTGACCAA	1980	
GACAAGATGG GTATCCGCTT TCAAAAATTG GCTGAAGAAG ATCCAACATT CCGCGTTGAA	2040	
ACAAAGCGTTG AAACGTGGA AACAGTTATC TCAGGTATGG GTGAACCTCA CCTTGAAGTA	2100	
CTTGTGTATC GTATGCGTCG TGAGTTCAAA GTTGAAGCGA ACGTAGGTGC TCCTCAAGTA	2160	
TCTTACCGTG AACATTCCG CGCTTCTACT CAAGCACGTG GATCTTCAA ACGTCAGTCT	2220	
GGTGGTAAG GTCAATTGCG TGATGTATGG ATTGAATTTA CTCCAAACGA AGAAGGTAAA	2280	
GGATTGGAAT TCGAAAACGC AATCGTCGGT GGTGTGGTTC CTCGTGAATT TATCCGAGCG	2340	
GTTGAAAAG GTTTGGTAGA ATCTATGGCT AACGGTGTTC TTGCAGGTTA CCCAATGGTT	2400	
GACGTTAAG CTAAAGCTTA TGATGGTTCA TATCACGATG TGACTCATC TGAACCTGCC	2460	
TTCAAGATTG CGGCTTCACT TTCCCTTAAA GAAGCTGCTA AATCAGCACA ACCAGCTATC	2520	
CTTGAACCAA TGATGCTTGT AACAACTACT GTTCCAGAAG AAAACCTTGG TGATGTTATG	2580	
GGTCACGTAA CTGCTCGTCG TGGACGTGTA GATGGTATGG AAGCACAGG TAACAGCCAA	2640	
ATCGTTCTGT CTTACGTTCC ACTTGCTGAA ATGTTCTGGT ACGCAACAGT TCTTCGTTCT	2700	
GCATCTCAAG GACGTGGTAC ATTCATGATG GTATTTGACC ACTACGAAGA TGTACCTAAG	2760	
TCAGTACAAG AAGAAATTTT TAAGAAAAAT AAAGGTGAAG ACTAATCCGT CCTCACTCTA	2820	
GAAGGAAGTC ACTTAGTGGC TTCTTTTGT CTTTAGAAAA TACCTCTAAA TATGGTAAAA	2880	
TAGTAGAAGA ATATGTGAG GAAAATGAAT GTCAATAGT TTTGAAATTT TGATGAATCA	2940	
ATTTGGGATG CCTGCTGAAA TGAGACAGGC TCCTGCTTTA GCACAGGCCA ATATTGAGCG	3000	
AGTTGTGCTT CATATAAATA GTAAAGTATG GGAGTTTCAT TTCGTATTTT CTAATATTTT	3060	
ACCGATTGAA ATCTTTTATG AATTAAAGAA AGGTTTGAGC GAAGAAATTT CTAAGACAGG	3120	
CAATAAACCT GTTTTGTAAA TTAAGGCTCG GTCTCAAGAA TTTTCAAAATC AGCTCTTGCA	3180	

GTCTACTAT AGGGAGGCTT TCTCTGAAGG TCCATGTGCT AGTCAAGGTT TTAAGTCCCT	3240
TTATCAAAAT TTGCAAGTTC GTGCTGAGGG TAATCAGCTA TTTATTTGAAG GATCTGAAGC	3300
GATTGATAAG GAACATTTTA AGAAGAATCA TCTTCCTAAT TTAGCCAAAC AACTTGAAAA	3360
GTTTGGTTT CCAACTTTTA ACTGTCAAGT CGAGAAGAA GTATGCTCGA CCCAAGAGCA	3420
GGAAGAGGCC TTTCATGCTG AAAATGAGCA GATTGTTCAA GCTGCCAATG AGGAAGCGCT	3480
CCGTGCTATG GAACAACCTGG AGCAGATGGC ACCTCCCTCA GCGGAAGAGA AACAGCCTT	3540
TGATTTTCAA GCGAAAAAG CTGCAGCTAA ACCCAAGCTG GATAAGGCGG AGATTACTCC	3600
TATGATCGAA GTGACGACAG AGGAAAAATG TCTGGTATTT GAAGGGGTG TTTTGTATGT	3660
GGAGCAAAAA GTGACTAGAA CAGGTCTGTG TTTAATCAAC TTTAAATGA CGGACTATAC	3720
TTCAAGTTTT TCTATGCAAA AGTGGGTTAA AAACGAGGAA GAGGCCGAGA AGTTTGACCT	3780
CATCAAGAG AAATCTTGGC TCCGAGTTGG AGGGAATGTG GAGATGAATA ACTTCACACG	3840
CGATTTGACT ATGAACGTAC AGGATCTGCA GGAAGTTGTT CACTATGAGC GGAAGGATTT	3900
GATGCCAGAA GGTGAGCGTC GGGTTGAGTT TCATGCTCAT ACTAACATGT CGACTATGGA	3960
TGCTTTGCCA GAGGTGGAAG AGATTGTTGC AACAGTGGCT AAGTGGGCGC ACAAGCGGT	4020
TGCTATCAGC GACCATGGGA ATGTCCAGTC CTTTCCACAT GGCTATAAGG CGGCTAAGAA	4080
AGCGGGAATC CAGCTGATCT ATGGGATGGA AGCCAATATC GTGGAGGACC GTGTCCCTAT	4140
CGTCTATAAC GAAGTGGAGA TGGACTTGTC AGAAGCAACC TACGTGGTCT TTGACGTGGA	4200
AACGACGGGA CTTTCAGCTA TCTATAATGA CTTGATTCAG GTTCCGGCTT CTAAGATGTA	4260
CAAGGGGAAT GTTATGTGCT AATTTGATGA ATTTATCAAT CCGTGGCATC CCTTGTGAGC	4320
CTTTACTACA GAGTTAACTG GAATTACAGA TGATCATGTC AAAAATGCCA AACCACTAGA	4380
ACAAGTTTGG CAAGAATTCC AAGAATTTTG CAAGGATACG GTCTTAGTTG CCCACAATGC	4440
TACCTTTGAC GTTGGCTTTA TGAATGCTAA TTATGAGCGG CATGATCTTC CAAAGATTAG	4500
TCAGCCAGTT ATTGATACGC TGGAGTTTGC TAGAAACCTC TATCTGAGT ATAAACGCCA	4560
TGGTTTGGGG CCTTTGACCA AGCGTTTTGG TGTGGCCTTG GAACATCACC ACATGGCCAA	4620
CTACGATGCG GAAGCGACTG GTGCTCTGCT TTTCATCTTT ATCAAAGAGG TAGCAGAAAA	4680
ACATGOTGTG ACGGATTTAG CTGAGCTCAA CATTGATCTA ATCAGTCCAG ATTCTTACAA	4740
AAAAGCTCGG ATCAAGCATG CGACCATCTA TGTCAAGAAAT CAGGTAGGTC TAAAAAATAT	4800
CTTTAAGCTG GTTCTCTGTG CTAATACCAA GTATTTTGAAG GGAGTGCCAC GGATTTCCGAG	4860
AACGGTTCTA GATGCCCATC GAGAGGCGCT GATTTTAGGT TCAGCTGTTT CAGAGGGTGA	4920

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AGTTTTTGAC GTGGTCGTTT CTCAAGGTGT GGATCGCGCC	GTTGAGGTGG CCAAGTATTA	4980
TGATTTTTATC GAGGTCATGC CACCGGCTAT CTATGCACCC	TTGATTGCCA AAGAGCAGGT	5040
CAAGGATATG GAGGAATCC AGACCATTAT CAAGGTTTG	ATAGAGGTTG GAGACCGCT	5100
TGGCAAGCCT GTTCTGCTTA CGGAAATGT TCACTATATC	GAACCGAAG AAGAGATTTA	5160
TGCTGAAATT ATCTCCCTA GTTTGGGACA GGTGCGATG	ATTAACTGAA CTATCGGTCA	5220
TGCTGAACAT GCCCAACCAG CACCATCTCC AAAGGCTCAT	TTTCGAACGA CTAATGAGAT	5280
GTTCGATGAA TTTCCTTTT TGGGAGAGGA ACTGGCTCGT	AAACTGGTTA TTGAAAACAC	5340
CAATGCCCTG GCAGAAATAT TTGAATCCGT TGAAGTCCTT	AAGGGTGACT TGTATACGCC	5400
TTTCATCGAC AAGGCTGAAG AAACAGTTGC TGAGTTGACC	TATAAGAAAG CTTTTCAGAT	5460
TTATGGAJAT CCGCTGCCAG ATATTGTTGA TTTGCGGATT	GAJAAAGAAJ TAACATCCAT	5520
ACTGGGGAAJ GGATTTGCTG TGATTTATCT GGCATGCCAG	ATGCTGGTGC AACGTTCTAA	5580
TGAACGGGGT TATTTGGTGT GTTCTCGTGG GTCTGTGGA	TCTAGTTTCG TTGCGACCAT	5640
GATTTGGGATT ACGGAGGTCA ATCCTCTCTC TCCTCACTAT	GTCTGTGCTC AGTGTCAJTA	5700
CACTGAGTTT ATCACAGATG GTTCGTACGG TTCAGGATTT	GATATGCCCC ATAAAGACTG	5760
TCCAAACTGT GGTCAJAJC TCACTAAAA CGGACAGGAT	ATTCCGTTTG AGACCTTCCT	5820
TGCTTTTGAT GGGGATAAGG TTCTTGATAT TGACTTGAAC	TTCTCGGGAG AAGATCAGCC	5880
TAGCGCCAC TTGGATGTGC GTGATATCTT TGGTGAAGAA	TATGCTCTCC GTGCGGGAAC	5940
GGTTGGTACG GTAGCTGCCA AGACTGCCTA TGATTTGTCT	AAAGGTTACG AGCGAGATTA	6000
TGGCAAGTTT TATCGTGATG CAGAACTAGA ACGCTCGCT	CAAGGAGCGG CGGGTGTCAA	6060
CGGACAJACA GGCACACACC CGGGGGGAAT CGTTGTTATT	CCGAACATAA TGGATGTCTA	6120
CGATTTTACG CCTGTCCAGT ATCCAGCAGA TGATGTACG	GCTGAATGAC AGACCACTCA	6180
CTTTAACTTC CACGATATCG ATGAGAACGT CCTCAJACTC	GATGTACTGG GACATGATGA	6240
TCCGACTATG ATTCGAAAJC TTCAGGATTT GTCTGGTATT	GACCCATAATA AAATTCCTAT	6300
GGATGACGAA GCGGTGATGG CACTCTTTTC TGGGACTGAT	GTGCTAGGGG TAACACCTGA	6360
ACAJAATGGA ACGCTACGG GTATGTTGGG GATTCCAGAG	TTTGAACAJA ATTTGCTACG	6420
TGGAATGGTA GACCAAJACC ATCCGACAJC CTTTGGGAA	TGCTTCAGC TGTCTGTGCT	6480
GTCCCACTGT ACTGATGTTT GGTGGGGAA TGCTCAGGAT	CTGATTAAAG AAGGAATAGC	6540
GGACCTATCG ACTGTTATCG GTTGTGGGA CGACATCATG	GTTTAAGCTCA TGCATGCGGG	6600
TCTGGAACCT AAGATGGCTT TTACCATTTAT GGAACGGGTA	CGTAAAGGCT TGTGCTAJAA	6660
GATTTCAJAA GAGGAGAGAA ATGGCTATAT CGAJGCAATG	AAGCTAJATA AGGTGCCAJA	6720

GTGGTATATC GAATCCTGTG GGAAATTA A GTACATGTC CCTAAGSCCC ATGCGGCAGC 6780

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CTGTGCTTAC TTCTCCATTC GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT 6900

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TAATGTGGAA ATCGATCTCT ATACAACTCT TGAGATTGTC AATGAGATGT GGAACGAGG 7020

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GGATACCCCT ATCCCAACAT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCCAAGCA 7140

ACTGGTGCGG GCGCGTGAAG AGGAGAAAT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG 7200

TGGACTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCCTG GAAATATGCC 7260

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TAAAGAGGCG TAACGTATAT CCAATAGATT TACATTAGCT TTCTTTTCTG TTTAAATAGT 7380

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AATATTTTCC TTCTGCAGGC AATTCATAT CAGGATTAC CTTPPGATGT TAGACTAGAC 7560

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TCTTTTGAA T CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTG GTTATCATAA 7680

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CAGTGATTTA TTTTAATCTA TTTTAAAGGG GTTCTCATGA AACTAAGAAAT ATTTGCGGAA 7980

GATAAGCCGG CTAAAGAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCCT 8040

CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA 8100

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GAAAAATATG CGAAATGTGT GGTTCGGAAC GGAATTAACG TGCAACCTGG TCACACTTTG 8220

GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACA TC TAATCGTCAA AGAAGCTTAT 8280

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TTCTCCATG CCCCAGTGA GCGTTGGAC AATGTGCCAG AATACAAGAT TGCTGAGATG 8400

AACTATCTCT TGGAGAAATA GGCTAGCCGT CTGGAGTTG GTTCATCTGA TCCAGGTGCC 8460

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TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCTTTPGGG ACCAAATTTT CAAAACCTGC CGTGTCTACG AAGCAGATCC TGTAAAGGCT	8700
TGGGAGGAAC ATGGAGCCAT TCTCAAGAGC AAGGCCGATA TGCCTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTFTGGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATTCCTGCC AATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACACCG AAATATCATT GAAGGCATTA AGGTGACCTT TAAGGATGGA	9000
CAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAGACCTT TGTCTTGAA	9060
AATGCGGGTG CGCGTGCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCTTT TTCGATGAAA ATCGCTCAA CACTTGGCT	9180
ATCGGTGCAG CCFATGCGAC TAGCCTTGTG GATGGAGCG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CAGGTAGACT TTATGATTGG TTCTAACCA	9300
ATGATATCG ATGGTATTCG TGAGGATGGA ACGCGGGTAC CTCTTTTCCG TAATGGGAAT	9360
TGGGCAAAAT AAGGAGATAA TATGTTAGGA AGTATGTCG TTGCTCTCCT ACTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGGAAA AATGTTTCTC	9480
GCTTGGATCG GAGCCTTTCT AGGTCACTTG CTCTTTGGAA CTTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCACAG GATTTTAGGA GCCATGATG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14231 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACTCTCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGTCACTT TAATCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGA	240

ACTATGCGTT	TTATTGCGG	AAGGTTACT	CCATTTCTC	CTGAAATTGA	GTTTTGTCC	300
AGCCTCGTT	TTTAGGGTTG	CTAAGAAAT	AATGTCATGT	GGTGAATATT	TGTAATCAG	360
TCAGCAGACA	GAACGATACT	CTTCGAAAT	CTCTTCACAT	CATGTCAGCT	TCGTCTTCC	420
GTATATATGT	GACTGACTTC	ATCAGTTCTA	TCTACAACCT	CAAAACAGTG	TTTCGAGCTG	480
ACTTGATCAA	TTTTCAAAATC	TGTACTTTGA	GCAAGCTGAG	ACTAGCTTCC	TAATTGATTT	540
TCATTGAATA	TCAGAAACCC	ATTCTCCATC	AAATAATTCG	ACTGCGTCTA	ATAATTTTG	600
ATCTGGCAGG	GTGCTGAAA	TAAAGTTGT	GTATTTGGAG	AGGGGATTAA	TTTTAAAAA	660
TCCAGTCTTG	TAAAAATTAG	AACTATCAAT	CAGTAAGATG	GTTCATGGG	CTTTGTCAAT	720
AATATTCTTT	TTTGAATAG	CTTGGCTGAG	AGAAGCTTCA	TAAACATATT	GGTCATCAAT	780
ACCTCTTGCT	GAACAAAAATG	CTAAATCGAT	ATTAAAATGA	TCTAATAAAG	AATTTTCCTT	840
ATCATAGTTG	ACCACGGAAC	AGGATTGATG	TTTGACCTCG	CCAGATGTGA	TAAAGATTTT	900
GGAGTATCT	TTAACAGTTT	CAGATAGGGT	TTGTGCAGTA	TGTAAACCAT	TTGTAAAAAT	960
AATCAAATTA	TCAAGTTCAG	AAAGATAGGG	ACAGAGTTCG	TAGACAGTAG	TACTAGAATC	1020
TAGATAGATA	CACATACCAG	ACCGAATAAA	GTCTTTAGCG	AGACTAGCGA	TTAGTCTTTT	1080
TTGCCATAGT	CTTTCTCCTT	CACGTATTG	ATGAGAAAGT	TCAAATTGTG	TCATAGAGGA	1140
CAGGGTCACG	TATCCGTGCT	TTCTTTTGAT	AAGACCTTGA	TTTTCTAAGA	AAATTAAATC	1200
ACGACGTAAG	GTACTTGTGC	TGGAGAAAGT	GATTTCTGCC	AGCTCTTTTA	CGCAATTCT	1260
TTTTTCTCTT	TTGATAATTT	CAATCAATTC	AAGTACAGT	TCATCTTTTA	TCATAAGCTC	1320
CTCCTAATTT	ATCAATTCAA	CTATATTATA	GCACAAATTG	GAGGAATTTG	AATATTTTTT	1380
ATGAATATTG	GGTTAACATT	TGAACATTTAT	TCAAGTAAGC	GTTCACATAT	TGAAAAAATA	1440
AAACGTGGGG	ATTATAATAA	AGTTAATCMA	GGACGAGAG	AGAAGAAAAA	TGGAAGCGGT	1500
TTTAGCAATA	GATTTAGGTG	CGACTTCGG	AAGAGCAATC	GTGGTTTACC	TTTCTGAAAA	1560
TAAACTAGTA	ATGGAAGAAA	TAAATCGCTT	TTCTAATCTA	CCTATTAGAG	TAAAGGGCA	1620
TTTATCTTGG	GATATTGACT	TTCTACTAGC	TAAAAFTCTT	GAAAGTATCC	GCTTGGCTAA	1680
TACTAGTTAC	AAGATTTTAT	CTATCGGTAT	TGACACATGG	GGAGTTGATT	TTGACTGTAT	1740
TGATAATGAA	GGTAGGCTGT	TATTACAACC	TGTTCAATTAT	CGTGATGAAA	GAACAAAGGG	1800
AGTGTTAAAG	GAAATATCTG	AAATGACTGA	ATTAGAAAAA	CTGTATTTCG	AGACAGGAAA	1860
TCAGATTATG	GAGATAAATA	CCTTGTTCCT	ACTCTTTAAG	GCACGTCAG	AATCTCCTGA	1920
CTCTTTCTAT	AAGACCAATA	AGATTCTTTT	AATGCCAGAT	TTGTTTAATT	ATCTCTTGAC	1980

		544	
AGGTAGT	TTTCAACA	CAATTATT	ATCCTAGG
TCAAAATT	AATCAGA	TTCTAAA	ATTGAA
AATTGTT	GAGGAA	TTCTTGA	GATAAAG
TCCTGTT	AATGTT	GTTCAT	AGCAAG
AGAGGT	TTATTAT	CATCAG	TTGGTCT
ACCGATT	CTACC	CCTTCAG	TGGATT
AGTGATT	TTTCTGA	ATTGTAC	GTGTGAT
ATTTGA	AGAGG	CCTATCT	TGATGAT
AAAAGAA	CTTCTCT	TTGATAC	ATCACT
GCACAAG	TTGACAG	ATCTAG	TCATCAT
ACAACT	TAAGATT	ATGAA	AGCTGA
ACTAGAA	CTAACT	CATA	AGGTTTA
AGCCAG	TTTAAC	TA	TGATTG
GACTGAG	ACAGCT	GTG	GGAATAT
AGGGAT	GAGGCT	CACC	ATGTTAT
CCAAAG	TA	AAAGATT	GAGAGT
TGTGCA	GGGGG	ATAA	TTGGTGA
GACAAG	TCAGAT	GTA	AACAAG
AGATTG	AAAGGA	CAG	GTGGGA
GGCAATT	CCGTG	GGA	TTGATT
GGATATT	GGAA	TGTTG	TAGAGG
TTTGATT	CA	TATCA	ATC
TGCACAG	TTAGCT	TC	AGAGA
GGCAGG	GATG	TCGG	TAGCT
GAATG	CAAT	AGG	TCGTAG
AGCAGG	TC	CAAA	TTAT
AAAA	TTTAT	TGTT	TAGCTA
GGATT	GATG	GCAG	AAAA
TTAAAC	ATA	TACC	AAAA
CATGGAG	AT	AGCT	GA

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CTAATTCGTT GTGATGGTGT AAATATTCGA GAATATATTAG ATTCCAATTC GTATTTAATG	3840
CCATTAGATA GTTACGTGGA TAGTTCAATT CAGTTTATGA ACCGTTGTTT GGGTGATGAT	3900
ATTCTCAAGA TATGGGOTAC CTATAGACAG ATGATTGAAG GTCATGTGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAGA AGAAGACTTT TATGAACGTA GTAAAGAAAG TTATGCTATT	4020
GTTCGTACAG GAGAACTTC ACTTTATGCT AATATATACC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CAUGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCGAAAA TGTTTGTTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
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TGAACGTGTA GACTCAAAAT AAGAGGTTAT CGTTTGACT GACTTGATTG GAGGAACTCC	4320
TAATAATGTG GCTTTGTCAC GGTTTTAAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCTAGTGG AATTAATATC AAGTATGAT TCAAAAATCA ATTAGAAGA	4440
AATTTGTCAC AATGCTCAAA ATAGTTTGTG TAATCTTAAA CAACAACCTA ACCTAGAGGA	4500
GGAAAGAGT TTATGCTAT AGAGTTTGTG CGTATGATG ACCGTCGCT ACATGGTCAA	4560
GTTCGCACTA CGTGCTAAA AAAGTATGAT ATTGAGCAAG TTATCATGTT TAATGATCGC	4620
ATCTCAGAAG ATAAAAACAG ACAATCTATT TTAAGATTG CTGCACCGGT AGGTTTAAAA	4680
ATTCGTTTCT TTAGTGTAAG ACGGTTTGTG GAAGTTTAAA ACTCTGTGCC ATTAATAAAG	4740
AGAAACATGC TGATATATAC AAATCCAAAA GATGTGTATG ATTCTATTGA AGGAAATTTA	4800
AAATTGGAGT ACCTCAATGT AGGACAGATG AGTAAACGG AGGAAAAAGA AAAGGTAACG	4860
GGAGGTGTAG CTCTAGGTGA AGAAGACAAA TATTATTTTA AGAAAAATAGT TGATAAGGGA	4920
ACGAGAGTTG AAATTCAAAT GGTTCCTAAT GATAAAGTTA CAATGTTGGA AAAATTTTTA	4980
TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTCACAC AAGCATTAAT GGTGACATTA	5040
GTTCGGATTA TTGCCACTAT TGACTATAAT GGACCGTTAT TTATGATPCA CCGTCCGTTA	5100
GTACAAAGTG CAATGTTTGG CTATGATTTA GGAGATTTCA CCCAAGGTCT TCTTATTGGT	5160
TCAGCTCTTG AATTAACTTG GCTCGGTGTA ACAGGTATTG GAGGTTATAC TCCACCAGAT	5220
ACTATTTTAC GTCCGATTAT TGGTACTGCA TTTGGTATTT TATCTGCTCA AGGAGAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTTCTTGCA	5340
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TCAAGATCG GTTTTATATCA TTATTCAGAT TTGGTTTAAA TCACGTTATT TAAAAATTGTA	5460
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CCACCAATCG TTATGCAGGG ACTTAACTCT GCAGGTGCTT TACTACCTTC AATTGGTTTT	5580
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ATTTGTTCTG TGTATGGAG AATGTCAAAC ATTGGGACTCT CACTAGTTGG TATTGCGGTA	5700
GCATACTTCT ACGATATGAT TGGAAACAAA CCACAAAGAA CAATCTCAAG TAGTGATGTT	5760
GAGGAGGATC TTGATCTATG ATGAATAATA AAGTAACTAA AGTTGAACCT AAAAAGTTT	5820
TCAAAACGAAG TTTTATGTAT GGTCTCTCAT GGAACATGA GAGAATGCAG AACCTAGGTT	5880
TTCTATATAC AATTCTTCCA GTATTGAAAA AACTATACCC AGACAAAGAT TCAGCTCTCT	5940
CTGCAATGAA ACGTCACCTT GAGTTTTTCA ATACTCATCA AACACGCGCA CCATTTATTC	6000
TTGGAGTTAC TTCCGCTATG GAAGAACAAG AAGGAAATGA AGGTGCAGCT TCAATTACTG	6060
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CAGTAGTTCC TATCTGTTTT AGTATTTGGT COTCTTATTC TAAAGACGGC GGTGCTTTAG	6180
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TGAATATGCG GTATACTAAG GGTCTAGTC TTATCCAAGA AAATAATACA AAAGGAACAT	6300
TGAATCGCGT TACGAGTATG GCGACAGCAT TAGGGCTAGT ACTAGTGGGT GGTTTGATTC	6360
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GATCAAAGCC ACTATGAATT ACTTGGGGAA CTTTACATTG AGCATATAGA TATTCACTCT	6960
TGTGCTCTTT CATTTATATGA AAGAGAGCTA GATTTAGATA CAGCTATTTT TAATGTGTG	7020
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TATCAAGGAC	TTTATTGCAA	TGATGAAACA	ATGCCCTTTAT	ATAATAATGG	GAGATATCAT	10080
ATTCTTCTCT	TAATACATGA	GAANAATGAT	AAGGAAAAGA	TTTCATCTAT	ATTCCCTAAT	10140
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AATCCAAATA	ATTTACATAT	TTTATTGAAT	AATTACAGGA	CAGATAAGAC	AGCTATGTGG	10440
GCATTATCAG	GAATTTTGA	TGCATCAAAA	AGTTGGAAGA	AGAAGAATAT	AGAGTTAGCG	10500
AAGTGATATA	GCAAAAATTA	TTCCATCAAT	CCTGTAGATA	ATGACTTTAG	GACAACAACA	10560
CTTACATTAA	AAGGCCATAC	TGGTCATAAA	CCTCAGATAA	ATATAAGTGG	CGATAAAAAAT	10620
CATTATACCT	ATACAGAAAA	TTGGGATGAG	AATACCATGT	TTTATACCAT	TACGGTTAAT	10680
CATATAAGGA	TGGTAGAGAT	GTCTATAAAT	ACTGAGGGCA	CAGGTCCAGT	CTCTTTCCCA	10740
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TGTCGTGCTG CAAGGTGTAC GCGAATCACT TGAAGTGAAC AACAATGAAC TGCTAAAG	12240
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GATTTCCTCA TCTACTATTG GCGGTGTACC AGAGGCTGCA GCTTCCCATG AGTTGTTTAA	12360
AAAATCAAA GTTTGCGCAA CAATTACAGT TACACCATGC TGGTGTATG GTAGTGAAGC	12420
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TGGGATTTAT GGAAGAGATG TTCAGGAAGC TAGTGACACA GATATTCCAG AAGATGTCAA	12600

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CTTCCAAGAA	TACTTAGGAA	TGCGAAATGAATCGGTAGATATGACGGAGT	TCACGCGCG	12780		
TATGGACCGT	GGTATTTACG	ACCCGGAAGA	GTTCGAACGT	CGGCTCAAT	GGGTGAAGAA	12840
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TAACCCRAGA	CTTGCTGAAC	TTGGTTTGA	GGAGAAGCG	GTGGTGCACC	ATGCTTTAGT	13020
AGCTGGTTTC	CAAGTCAAC	GTCACTGGAC	AGACCATTTT	CCAAATGGGG	ACTTTATGGA	13080
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CGCGGAATAC	TTCCGTGGAG	GAGGATTCCTC	AACTCGTTTC	TTGACGAAGS	GGATATGCC	13500
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AGGTTACACA	CTTGAACCTTC	CTGAAGATGT	TCACCATACT	TTAGATAATC	GTACAGATCC	13620
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CTATGACCTC	ATGAATAATT	GGGGAGCTAA	TCACGGAGCC	ATAACATATG	GACACATTGG	13740
AGCAGACTTG	ATTACCTTGG	CTTCTATGTT	GAGAATTCCT	GTCAAATATGC	ATAATGTACC	13800
TGAGGAAGAT	ATCTTTAGAC	CTAAAAATTG	GTCTTTATTT	GGAAACAGAG	ATCTAGAATC	13860
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GGAGGTGAAC	TPACGTCCCT	CCTATCCCTT	TAAAAAGATT	TGTTAAACAA	TTACAAATTA	13980
ATTGAAAACG	AATACAAAAA	GTAAATAAAT	GATGTTAAAT	AGATAGCGCG	GAGGCGCAGG	14040
AGGAAAATTA	TATGGCTATA	TTTTATGTTT	CGGCAGTCAA	CCTTATTTGA	AAAGGTGTTG	14100
TAAATGAAGT	GGGTCTTAT	ATCAAGGAAC	TGGCTATAAA	AAAGGCACCT	TTGOTGACAG	14160
ATAAGTACAT	CGAAGGCAGT	GATATTTTAC	CTAAGACTTT	AAAACCACTG	GATACAGAAG	14220
GAATCGAATA	T					14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 16995 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCCTCTA ACTTTTTTAG GATGGCATTG TCCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGTCTCT TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCTCT TGTTTTCTCA ACAATAGTAT ACCCGTTTTT CTTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTCTTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
TTCTTTTTTT GACGAACCTC ATTCCGTAAC GATCAATCAA TTTAATCATG TACCTAATAT	360
TAGAATTGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGTFTTCTAA	420
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TAGATTTTTT CTGCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAGTAA TGTTTTGACA CAAAATCTGT	600
GACAAAACTT TAGTTTTAAA GTTTTTTAAC TTTGTATATA CTAGTTTTAA GAAAAGGAGG	660
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TCTTTTATCG CTGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTGTGT GGTCCATATG	840
TAACGATATT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGAGAGT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCCTA	960
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CTCTTACTGG AGCTGTGGG AATGGTGTG AGGCTATTTG CAATGCTCGC CTCCTTCTTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTCTCT CAATAATGCC CTCAATCATG	1260
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ATGAAATTTA CTTCCTTAT GTTATGATGA AGCCTACTCT ATTTTAGCT GCTATGGCAG	1500

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CTAAAGCTCA GTCTAAAGGT CAGTTAGTAT CAACTTCTGT TGAATCAGTT GTTTCGACAG	1800	
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 AAACATCTG TCTATTTTGG TGCCGGTAAT ATCGGTCTGT GTTTTATAGG TGAAATCTA 4980
 TTTAAAAATG GTTTCCATAT TGAATTTTGT GATGTCATAA ATCAGATAAT TCATGCTCTG 5040

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AATGAAAGG	GCAAGTATGA	AAATTGAAAT	GCACAGAAAG	GACAGTCTCG	TATAGAGTFA	5100
ACTAATGTGG	CTGGCATTTAA	TAGCAAAAGAA	CATCCTTGAGC	AAGTCATTGA	AGCGATTCTAA	5150
AAGACGGATA	TTATTACTAC	TGCAATCGGA	CCTAATATAC	TCCCTTTTAT	CGCGAACTT	5220
CTAGCCAAAG	GAATCGAAGT	TGCGCGAGTT	GCAGGAAATA	CACAGGCATT	GGATGTTATG	5280
GCCCTGTAAA	ATATGATGG	CGGGCTCAA	TTTCTTTATC	AAGAAGTCAA	GAATATTTTA	5340
AGTCCGGAAG	GTTTGACATT	TGCTGATAAC	TACATAGGTT	TTCCAAATGC	TGCAGTAGAC	5400
AGGATTGTTT	CAGCAAAAG	TCAOGAAGAT	TCCCTTTTGG	TTGTGGTCTGA	GCCCTTTAAT	5460
GAATGGGTGG	TGGAAACCAA	GCCTCTTAAA	AATCCAGATT	TACGTCATAA	AGATGTGCAT	5520
TATGAAGAAG	ATTTAGAAC	CTTTATTTGAG	CGAAATCTTT	TTTCAGTCAA	TTCTGGACAT	5580
GCAACTTCAG	CTTACATTGG	TGCGCATTTAT	GGTGCCAAGA	CAATTTTGGG	AGCTCTTCAA	5640
AATCCTAATA	TTAAATCTCG	GATTTGAATCT	GTATTAGCTG	AAATTCGGAG	TCTCTTGATT	5700
GCCAAATGGA	ACTTTGATTA	AAAGAAATGG	GAGAAATATC	ACAAAGTCAT	TATAGAACGA	5760
CTTGAJAAAC	CTTTCAATAG	GGACGAGGTT	AGTCGGGTAG	CTCTGTACTCC	AATCCGAAAA	5820
TTAGGCTATA	ATGAACGATT	CATCCGGCCG	ATACGTGAAT	TGAAAGAACT	CAGTTTGTCA	5880
TATAAAAACC	TACTTAAAC	AGTTGGCTAT	GTCTTTGACT	ATCGCGATGT	AAATGATGAA	5940
GAAAGTATT	GATTAGGTGA	ATTGTTGGCT	AAACAAATCAG	TCAAAGATGT	TGTTATACAA	6000
GTACAGGTT	TAGACGACCA	AGAATTGATT	GAGCAAAATG	TAGAGATATAT	TTAATCTTTT	6060
TGCAJAAATCT	CTTCAATATCA	GGTTAGCATC	GCTTTGTCTT	AGGCATATGT	TGTTCTATCT	6120
ACCACTTCAA	AGCAGTGCTT	TGAGCTGACT	CGCTCAGTCT	TATCTTGCAAT	CTCAAAACAC	6180
TGTTTGAGTT	ATCTGGGGTA	ATCTTTCTAG	CTTGTCTTTG	ATTTTGTGTT	TTATTTATATA	6240
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GAGTTTTTGA	TCAGCTTTAT	GAGATAGGTC	TTGCTAGAGA	TGTAGCCCAT	CATGTTATTT	6420
TTATGGACAG	TGGGAAAAAT	GTTGAAAAAA	ATAATGCCCA	TCAAATCTTT	AGTCGTCCAA	6480
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GAAGTAGGAG	TGTAATATTC	TAGTTTCAAT	CTACTATATA	ACTGAJAAAT	TAGATAAATTT	6660
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TGAGTGTTTT	AGTTAGGAAA	AAGGCTTGTT	GTCTATAAAT	GTCTGCATTA	GTCTAGATTT	6780
TATTTATAGA	AAATGTTATA	ATAGACTGTA	TTTAAAAAAT	TTTAAGGAGA	AATGACAGAA	6840

TGTCGTATC	ATTTGAAAC	AAAGAACA	ACCGTGGT	CTTGACTTC	ACTATCTCTC	6900
ANGACCAAT	CAAACAGAA	TTGGACCGT	TCTTCAAGTC	AGTGAAGAAA	TCTCTTAAAG	6950
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AAGAAGCTG	TCTTGAAGTG	GTTCGCCAAC	CAAAAATGA	CGTAACCTCA	ATGGAAGAAAG	7140
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GTGAAAAGG	TGAAAACCTC	TCACTTGGAC	TTGGTTCAGG	TCAATTCATC	CCTGTTTTCG	7440
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CAAGCACAGC	AACAGTAAAA	TAATCTTAAT	AAACAGAAAA	CCCACCTGAA	TTGGTGGGTT	8160
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GTAATTCGCG	TAGTAAGATG	AGTTTCTCTT	TGGCAGGTGT	AAATGGCTGTG	TAGATGAGAT	8460
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GGGGGTAAAG GACTTCATTA CCATCAAAAT CAATGACAAT CTCGCTTGT TTCGATTGG	8640
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GATAGAAACC GTTGTCTGAG GTAGTTTCAA AAGTAGCGG ATATAGGGAT TCTTGCTAGG	12240
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GTGCGACTAT TGTCACTTTT AAAGGATAGC AGTATTCCTGG ACTTTATATAA GTAAAAAATCG	15720
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CATCTTGCTA ACTGG	16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28473 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

CCGCGGCTTT TGTAGTATAA TAGAGATACG TTTTGAAGT AGGAGGTATC TATGGACTTA

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ACTAAGCGCT	TTAAATAAACA	GTTAGATAAA	ATTCAAGTTT	CGTGTATTCG	TCAGTTTGAC	120
CAGGCTATTT	CGGAGATTCC	TGGGGTCTTG	CGTTTGACCT	TGGGGGAACC	TGATTTTACA	180
ACGCCAGACC	ATGTCAAGGA	GGCGGGCAAG	CGAGCGATTG	ATCAGAACCA	ATCCTACTAT	240
ACAGGGAAGA	GTGGTCTGCT	GACTCTACGT	CAGGCAGCCA	GTGACTTTGT	TAAGGAAAAG	300
TACCAACTGG	ACTATGCTCC	TGAAAATGAA	ATCTTGTTTA	CAATTGGGGC	GACAGAGGCT	360
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GCTTATCCAG	GCTATGAACC	GATTGTTAAC	TTAGTTGGGG	CAGAAATTGT	TGAGATTGAT	480
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GGTGATAAGC	TCAAGGCGGT	TATTCTCAAC	TATCCAGCCA	ATCCGACAGG	AATTACCTAC	600
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AGTACTTGGT	CATGCGCGCA	AATACCATGG	CGCAACATGC	TGCGGTAGAA	GCCTTGACGG	900
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GAAAGAACAG TTACCTTATC ATCTTTAGCA TTGAAGAGTT CAATATCTGA AAACCTTACA	28260
AGCTGTGTGT TGGGTGCACG TGAACGAGG GTTCTTTTTT CTTGTGGCG GACAAATATAG	28320
CCATCTTTGG CAAGGTCGTT TAAGGCGCGA ACAACTGTGA TAGAGCTGAC ATCGTACATT	28380

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GAAATGAGTT CTGCTTCAGT GAAAAATTAA TCCTCACTGC TAAACTGCCC AGAGATGATT 28440
 TTATTTTTTA ATTCGTCITT TATGTATGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 6749 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCGTGATGGT GGTATGGAG GATACAGTTC TGAATATCGC COTTACTTAA TTAATGGACG 60
 CGAAGTCACA CTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCAATTAC CAGGAAATGC 120
 AGAAACTGAT GTGCAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCTTTC 180
 AAAACTAGTT CGAAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTTGGATC CTGTTATCGG 240
 ACGAAACAAG GAAATTCAG AAACATCTGA AATCCTCTCA CGCCGACCA AGAACAATCC 300
 TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC 360
 CATTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT 420
 CTCAGGTCTT GAGGCTGGTA CTCAAATACG TGGTAGCTTT GAAGAAAATG TCCAAAACCT 480
 AGTCAATGAA GTGAAGAAG CAGGGAATAT TATCCTCTTC TTGATGAAA TTCACCAAT 540
 TCTTGGTCTT GGTAGCACTG GTGGAGACAG TGGTCTTAAA GGACTTGGCG ATATTCTCAA 600
 GCCAGCTCTC TCTCOTGGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG 660
 TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTTC AACGAAGTGA AGGTCAATGC 720
 TCCTTCGGCA GAGAACTCTT TTAATTTCTT TCAAGGAATT CGTGACCTCT ATCAACAACA 780
 CCACAATGTC ATCTTGCCAG ACGAAGTCTT GAAAGCAGCG GTGGATTATT CTGTTCAATA 840
 CATTCTCTAA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA 900
 CTGGCGGCTT CAACNTCCAG TAACAGATGT GCATGCTGTT GAAOGAGAAA TCGAACAAGA 960
 AAAAGACAAG CAAGAAAAG CAGTTGAAGC AGAAGATTTT GAAGCAGCTC TAAACTATAA 1020
 AACACGCAAT GCAGAATTGG AAGGAAAAT CGAAAACAC ACAGAAGATA TGAJAAGTAC 1080
 TGCAGTGTGC AAGATGTGG CTGAATCTGT GGAACGAAT ACAGGTATCC CAGTATCCCA 1140
 AATGGAAGCT TCAGATATCG AACGTTTGAAG AGATATGGCT CATCGCTTGC AAGACAAGGT 1200
 GATTGCTCAA GATAAGGCGG TAGAAGTTGT AGCTCGTCTT ATCCGTCGTA ACGTGTCTGG 1260

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TTTGTGATGAA	GGAAATCGCC	CAATCGGCAA	CTTCCTCTTT	GTAGGGTCTA	CTGGGGTTGG	1320
TAAGACGGAG	CTTGCTAAGC	AATTGGCACT	CGATATGTIT	GGAAACCCAGG	ATGCGATTAT	1380
CCCTTTACAT	ATGCTCTGAAT	ACAGTGCACC	CACAGCTGTT	TCTAAGCTAA	TTGGTACAAC	1440
AGCAGGCTAT	GTGGGTTATG	ATGACAAATG	CAATACCTTA	ACAGAACTGT	TTGCTCGCAA	1500
TCCATACCTT	ATCATCTCTT	TGGATGAAAT	TGAAAAGGCT	GACCCCTAAG	TTATTAACCT	1560
TCTCCTCCAA	GTCTCTAGATG	ATGCTCGTIT	GACAGATGGT	CAAGGAATA	CAGTAAACTT	1620
CAAGAACACT	GTCTATTATG	CGACCTCAAA	TGCTGGATTT	GGCTATGAAG	CCAACTTGAC	1680
AGAAGATGCG	GATAAACGAG	AATTTGATGGA	CGGTTTGAAA	CCCTTCTTCC	GTCCAGAAAT	1740
CCTCAACCGC	TTAATGTCAG	TCATCGAGTT	CTCACACTTG	ACTAAGGAAG	ACCTTCTCTAA	1800
GATTGTAGAT	TTGATGTTGG	CTGAAGTTAA	CCAAACCTTG	GCTAAGAAAG	ACATTGACTT	1860
GGTAGCTCAT	CAAGCGGCTA	AAGATTATAT	CACAGAAAGAA	GGTTACGACG	AAGTCATGGG	1920
GGTTGCTCCT	CTCCGTCGCG	TGGTTGAACA	AGAAATTCGT	GATAAGGTGA	CAGACTTCCA	1980
CTTGAGTAT	TTAGATGCTA	AACATCTGGA	AGCAGATATG	GAAGATGCGG	TTTGTGTTAT	2040
TGCTGAGAAA	GTCTAAGACA	GAATTTTGAG	GATAAAAAAG	AAGGAGCCAG	CTGAAAAAAA	2100
CTGGTCTCTT	TTTAGGTACG	ACAGGCTAGT	CGTATAGTAG	AAGTGTATTA	TTCTAGTTTC	2160
AATATACTAT	AGTAGCTCAG	AAGTCGGTAC	TTAAACGTGC	TATATCAAAA	CCAGTCCCTGG	2220
AAAAACGTGG	ACTGGTTTCG	TGTTTGGAAT	ATTACCTTGA	ACGACATGCG	TTAAAAAGTTA	2280
GTTCGAACCG	CGTATGCCGA	ATGCTACGTA	CGGTGGTGTG	AGAGGGGCTA	GAGATTATCC	2340
CCTACTCGAT	TTTAAATCAC	ATGACGTTCA	AAGGCATCAT	CTGAAATCCC	TTGTTCCAAG	2400
ATGAGTTTGT	CCCATTTCTT	AGCAGAGAAG	AGGCTGTGGT	CCTTGATAGT	TCCGCAAGAT	2460
TGAGTGTGTG	TCCCTGGGAC	ATCTTCCCAA	GTAGTAGTTT	CAGCGATTTC	CTTGAGCGAA	2520
TCCTTGATAA	CAGCTGCGAT	TTTAGCACTG	GTGTGACGTC	CCCACATAAT	CAITGTGGAAG	2580
CCTGTGCGCG	AACCAAAATGG	TGAACAGTCA	ATCATGCGGT	CAATGCGGGT	ACGGATGAGT	2640
TTGGCTAAGA	GGTGTGATG	AGTGTGAAGG	CCGGCAGTAG	GGATGAGAGT	TTGTTTGGGT	2700
TGCACCAAGC	GAAATATCAT	ATTGGAGATG	ATGTCTCCCT	TTGGTCCCTG	TTCTTCCCCA	2760
ATCAAGCGAA	CATAGGGGTG	TTTGACAAATG	GTGTGCTCAA	GTTCAAAAC	TTGACAAATA	2820
ACTTCTTTTG	ACATGGTAAA	TCCTTTCAGT	TTTCTTCTCT	CAITATATCA	TAAAGGTTGC	2880
TCCTTGAGACA	GAGAGAAAAC	CTCTCCGAGG	CTGGAGAGGT	TGAAATCTTT	ACTTACGATA	2940
TAAGCGGTG	TATTGTGATG	ATGGGTCAAA	GGTTACGTG	ATACCCAGTT	TACGAAGGAC	3000
ATTCTTGTCT	TCATCAATCA	AGATGATGGT	TGAGTGGGCT	TGCTTCTCTT	TGAGGTTGCG	3060

GAGTCTTCC ATAGCGGGG CAGCATCAGG ATTTCTCTGA GCTGTGATAG CAAGTGAAT	3120
CAGGATTTC A TTGAATGAA GCGGTGGATT GCGGCTACGG AGATGATCGA TTTTAAGACC	3180
TTGGATTGCG TTAACAACCT CAGGCTCGAT TAGTTTTACT TCCTTAGCGA TGTCAGCTGA	3240
TTTTTTGATG GCGTTGATCA AGGCAGCGGC TGTAGGACCA AAGAGTTCTG AGTCTTTACC	3300
AGTGATGATT TCCCATTTG GCAATTCAA GGCTAGGGCT GGTCCACCAG TTTCTTCTGC	3360
TTTTTGGCGC GCAACGACAG CAACCTTACG GTCTGCAGGT GTGATACCGA GGTGCTTCAT	3420
GAGCACTCA ATTTTCTTGA CGGCAGCTTC GCCAACTTTT TCAGCTTTGA AGTCAAGAAC	3480
TGTTTGATAG TAACGGCGGA TGATTTCTTG TTAGAAAGCT TCGACAGCGG CCTCGTCATC	3540
TGTAAATGCG AAACCAACCA GTTTGACACC CATATCTGTC GGTGAAGCGT ATGCTGATT	3600
TCCGAGAATA CGTTCCAACA TCGTTTGAG CACTGGGAAG ATTTGATAT CACGTTGTA	3660
GTGACAGTG GTTTCTCCAT AGGTTTGAAG ATGGAAGGGG TCAATCATGT TGACATCATC	3720
AAGTCAAGT GTGGCAGCTT CATAAGCCAA GTTAACTGGA TGATGAAGGG GAAGATTCCA	3780
AACAGGGGAG GTTCAAAAT TAGCGTAGCC AGATTTGATG CCATTGATTT GGTCTGGTA	3840
CATATTGGAC ATACACGTTG CCAATTTTCC AGAACCAAGT CCAGGAGCGG TTACGACAAT	3900
CAAGTTGCGA CTGGTTTGA TGTAGTCGTT TTTGCCCATG CCTCTGGGG AAATGATGTG	3960
ATCCATATCC GTCGGATATC CTTTGATTGG ATAATGAAGA TAAGAATCAA TTCCGTTTTT	4020
CTCAAGTTGA TTGCGGAAGG CATCTGCAGC GGGTTGGCCA GCGTATTGTG TAATGACAAC	4080
GGAAACCAACA AAAATCCCTA ATTCATTGAA TTTATCAATC AAACGAAGAA CTCTTGGTC	4140
ATAGAAATG CCTAAGTCGC CACGTGCTTT GGAATGTTCA ATGTTGCTAG CATTAATGGC	4200
AATCAACACC TCAACCTGCT CTTTCAATTC TTGCAAGAGC TTGATTTTGT TGTCAGGTTT	4260
ATAACCAAGG AGGACACGAG CAGCGTGAAT ATCTTCTAAC ATTTTACCAG CAACCTCAA	4320
GTAGAGCTTG CCGTCAAAAT GGTAAATGCG CTCGAAATA TGGTCGCGTT GTAAATTCAA	4380
ATATTGTTCA GAACATAAAG CTTGTTTTTT CATTTTTTA CCTCTGGACT CTATTATAAT	4440
AAAAAATGG AAGTTAGGAA ACTACGGAGC TAAAAAAGAA ATAAAAAGA TTAAGCAJAC	4500
GCTTGCACAA AATTTTAAAA AGTGCTATCA TAGACTATAG ATTATGAAAA TAATGAGGTA	4560
AACAGATGCA AGAAAAATGG TGGCACAATG CCGTAGTCTA TCAAGTCTAT CCAAGAGATT	4620
TTATGGATAG TAATGGAGAT GGAGTTGGTG ATTTGCCAGG TATTACCAGT AAGTTGGACT	4680
ATCTAGCTAA GCTAGGAATC ACAGCAATTT GGCTTCTCC CGTTTATGAC AGCCCTATGG	4740
ATGATAATGG CTATGATATT GCTGATATC AAGCGATTGC GGCTATTTTT GGAACCATGG	4800

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AGGACATGGA TCAGCTGATG GCAGAAGCTA AGAAGCGTGA CATTCGTATC ATCATGGACT	4860
TGGTGGTCAA TCATACCTCA GATGAACATG CTGGGTTTGG CGAAGCCTGT GAAATACTAG	4920
ACAGCCCTGA GCGAGACTAC TATATCTGGC GCGATGAACC CAATGACCTA GATCTATATCT	4980
TCAGTGGGTC TGCTTGGGAA TAGCATGAAA AGTCAGGTCA ATACTATCTC CACTTTTTCA	5040
GCAAGAAACA GCGGATCTC AACGGGAAA ATGAAAAATC TCGCCAGAAA ATTTATGAGA	5100
TGATGAACCT CTGGATTGAT AAAGTATTG GTGGTTTCGG TATGGATGTT ATTGACATGA	5160
TTGGCAAAAT TCCTGACGAG AAGGTAGTCA ATAATGGTCC TATGCTCCAT CCCTATCTCA	5220
AGGAAATGAA TCAGGCGACC TTGGAGATA AGGATCTCTT GACGATAGGG GAGACTTGGG	5280
GAGCAACTCC AGAGATTGCC AAGTTCTACT CTGATCCAAA GGGGCAAGAA TTGTCTATGG	5340
TCTTCAGATT TGAACATATC GGTCTTCAGT ATCAGGAAGG TCAGCCTAAA TGGCACTATC	5400
AAAAGAGGCT GAATATCGCT AAGTTAAAG AAATCTTCAA CAAATGGCAG ACAGAGTTAG	5460
GAGTTAGGA GCGCTGGAAT TCCCTCTTCT GGAACAACA TGACCTCCCT CGTATTGTCT	5520
CAATCTGGGG AAATGACCAA GAATACCGCG AAAAAATCTG CAAAGCCTTT GCAATCTTAC	5580
TTCACTCTCAT GAGAGGAACT CCTTATATCT ACCAAGGTGA GAGATTGGG ATGACCAACT	5640
ATCCGTTTGA AACACTGGAT CAAGTAGAAG ATATTGAAT TCTCAACTAT GCGCGTGAGG	5700
CTCTTGAAAA AGGTGTTCCG ATTGAAGAAA TCATGGACAG TATCCGTGTT ATTTGACGTTG	5760
ACAAATGCCCG TACCCCTATG CAATGGGACG AGAGCAAAAA CGCTGGTTTC TCAACAGGTC	5820
AACCTTGTTT GCGGTTTAAT CCAAAATTAC AGATGATCAA TGTCCAAGAA GCGCTGGCAA	5880
ATCCAGATTC TATTTCTAT ACCTATCAGA AACTGGTCCA AATTCGCAAG GAGATAGCT	5940
GCGTAGTTGG AGCTGACTTT GAATGCTTG ATACGGCTGA TAAGTCTTT GCTTATATAC	6000
GTAAGGATGG CGACCGTCG TTCTAGTTG TGGCTAACTT TGCCAATGAA GAGCAAGACT	6060
TGACAGTAGA AGGAAAAGTC AAATCTGTCT TGATTGAAAA CACTCGGCTT AAGAAAGTAC	6120
TTGAAAAACA GGTCTTGGCT CCATGGGATG CTTTCTGTGT GGAATTAATA TAAATATTTT	6180
TTGCAGAAAA ATTTAAAAAT GAAATCGTAT AAAAAAAGG GAGGACTGTA TAAAGACAG	6240
AAATCCTTTG TTTTTATATA CCAAGITTA TAAACTTTCA TTCTTGAAAT TCAATTAAC	6300
TTACAAATTC CCACATATTA GGAGAAAGAA GATGAACATA AAGAAGCGTG TCCTTAGTGC	6360
AGGCCGTGACT TTTGCTACTG CTTTGGCTTT ACCCAATCA TTCAATCCTC TCTCAACTAG	6420
ATGTAACCTA CAAAACCCCT GACCTCATGA GCCACTTTCT TCCTCCTCAT GAGGTCAAGT	6480
TTACTTTCTG CTGTTCCAGT ATCGTTTTTC CTGCTAGAT TTCTCAAAA GGGCAGACTC	6540
CTCCCTTGST GCGTCACAGC ATTTTTTCAT CTCGACTGTT CTTTAAAGCA TCAATTAACGA	6600

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CGCTTTTCTT CTAGTGGT CATAAGGAAC AGGAAGATTC AGGTTGACCT TTCTAATCCT	5650
AGAAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAAAT TGAGGAGCTG	6720
CTTGCGTCCT GTTCGAACAC ATTTTCGGG	6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1842 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATTGT TCCATCTCT AGTGCGGAAT CTTTGGATAC	60
AAACGATTCA ATTCACTGG ATAGTGAAAC TCTCCCGCAA ACATTTTCTT GGTAACTCA	120
ATCCAGCTGA TATTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC	180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTGCG CCATGTAAAT CAATTGTTTC	240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTCA GACTTGGATA AACTCGCTTA	300
TTTGAAACCG CAAGAGGAAG TCTGATGTT AGTTCAGGAT TTTTAAAAAT TAATCAACG	360
AAATCCGTTA ATCTTAGATT GTACCGGTT TTAATTCGTA ATAAATTGGG AGATAAAAC	420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAATT TGTCTTTGT CATTCAGAA	480
ACTGAATGAC AAGATACTC TATGCCATAG TTTTGAAGA AATCTAAAAG AAGTTGATTT	540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCAAA GATTCGGTTC	600
CATTGTATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTTGCG	660
AAGTTAATCG GTTCTTGTG TTCATCATAA GCTTTTACAG TACTTTGGGT TGTAAGTATT	720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAAACGAG ATTTTGATGA	780
TCACTCAACA AGGCATCAAC CCAATCTTT ATGCTTGTAC TTTCAGGAA TTCCATAACG	840
TTTTGAAGAT AGGATTGTA AATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA	900
AATGTCACTT CAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAGTGCAT	960
CAAAATTGAA TTGGAATAAA TCAATTAAT AGCCCCATCC TCATCAATCC AACCTTTGCT	1020
CAAGACAAC TCCAACCGAT CTTTAAAAC TGAGTAAACC ACCTTAACT CCAGTTTCAT	1080
ATTCTTATAC CGTTCATCT CAAATAAAG TTTGGGGAGC TTATAATAAC GCTCTGATGT	1140
CTGATATGTA TTAGCGGTAA TAGCTTCAT TATTGCCCT CCAAGACTAA AATTCCAACA	1200

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TTTCCAATT CATCAATCG GATTAAACCT ACTTGTTCCA TTTCATCAAC TAACTGAGTT	1250
GCTTTTACC AAATCATTTA TACCTCTCTC AACTAGATGT AACTTACAAA ACCCTGACC	1320
TCATGAGCCA CTTCCTCCCT CCTCATGAGG TCAGTTTTAC TTCTGCTGT TCCAGTATCG	1380
TTTTTCCTCG CTAGATTTCC TCAAAGGGC AGACTCTCC CTGTTGCGT CACAAGATTT	1440
TTTCATCTCG ACTGTTCTTT AATGCATCAT TAACGAGCT TTCTCTTAG GTGGTTTATA	1500
AGGAACAGGA AGATTACAGT TGACTTTTCT AATCTAGAAA TAAAGTGTG AAAACAATT	1560
GGAATAGGCA TAGAGACTAG ACAATTGAG GAGCTGCTTG CGTCTCTTC GAACACATTT	1620
TCCACCACG TGAAGAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTACC	1680
TCCAGCTAGA TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG	1740
AACTTCGTTT TTGATTAAAG TTGAACATAC CGTTTATCG CCAAAAAATC CTCTCTCAT	1800
CTCTTGATG AATTCTCGG CTTGACCAG TCCACGATAA AG	1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19390 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTAT CTCTCGAAA TTTCTAATA TAGCCATTAT AACAGAATTT TGTGAAATTT	60
CCTATTATAG TAAATCACTA TTTCAGTATA AAAAGAAAAA ACGAATCAGA CGATTGCTC	120
TTCTTAAJAT CTGAAAATAG CTTCCTAGAA AGGATTAGCC GATTTTGTGC AGATTGAGCA	180
CTGCATGTT ACTCATCAAG ACTTGACCAT ACTCTGTAA GACTGAGCGA CTGATATCAC	240
TATCGTCTGC AAACCTCGCG ATACGGGCCA ACAGCCAAGC TGGATATGGG CTGGATGAT	300
TTTCAATATC CACTAAAATG GTCAATAAT AGCGCTCGTT CATTTTGTAG AGTTCAGAAG	360
TTTCCATTTT AAAAGTCACT GTCTTGGCAA AAGCTACCAA GTACGCCAAC TTAGCAAAAG	420
AAAGATGTA GTAGATGTA GGTCTTTCTT TACTCTCAGC TTCTTGTCA GCCTGCTCTT	480
GCTCTCTTTC CTGACTTCA ACTTGCTCAA GAGATTGAAT GGCTTCGATA TCATCTCTGG	540
TTTGTCTGCG ATGCTCTTTT TCCAGGGTTT TGATTAATTC ATCTGGAGAC ATTTGAGCCA	600
ATTCTTCCAT ATCTGGCAAA TCCGATAAGT CTTCAAAATC TAGATTTTGG TCAATCTTTG	660
ACTTGGTAC AAAGCATCT ACCTTATCAG GTTTTGGAGT CACACGGAAG CTCACATGC	720
CTGTATCCAG AAAGCTATCA GGCATCTCTA GCTCATCCAA GATGACATAA AAGAATCTTT	780

CTGTTTTC	TTGAGGAACG	AGAAAGTCAG	CAATCTCCAT	TCCAGCATCC	ATCAAATCCT	840
CTAAAGATAT	CGTGATTTT	AAAGTTGTAT	CACTAATTTG	TTTCATTTTC	ATTGCTAGTA	900
ACCTCATACT	TTCACTTCTA	TCTATTATAC	TAGATTTTTA	CGATTTTATC	AAAAGAAGGC	960
TCCCTCTATC	GGATAGATTT	TCCCTAGGGT	CTTCTATAG	GAGACTCCAA	AAGAAAATTT	1020
CTGCAGACAG	ATAGAAAGAG	CCTTCAAAAT	CGGCTAGAG	CCGACTTTGA	AGACCTTATA	1080
CATCAGAATA	CTTATAATTT	AAAGTTTGT	ACACCGAGGA	TAGAACGATT	TAACTTCTG	1140
AGAATTGAA	GACTTTGCTC	AAATTTCTTA	TAAACGATCA	CTCCGTACTC	TTCAACAAGA	1200
AGGACTGTAT	CTCTTCCAA	AAGAGATGAT	ACATCTCTGA	AATCTACAAA	ATGCAATCTC	1260
TTTAAAGCTT	CTTGACTCTG	TTTCAATTTA	TCTAAGATAG	CTTTATTTGA	GCTAACGATG	1320
GTCAATTCCT	GTCCAGTATT	TTTGTATGAC	AAAACATCTG	CTAGCTTAGC	AATGTGTGA	1380
ATCTCTGTGA	CAAAATCAAT	TTGATCTGTA	GAAAAATCAC	CTACTCTATT	GATTTGTGGA	1440
TTAAGAGAT	AAACTAACAC	ATTTCCCATC	ACAACCAAAA	TCACACAAAC	CACCTCAATA	1500
ACAATTAAC	GAAGATTCAG	ATTTTTCACA	TTTAAGCCAA	CGCGTGTTC	ACCATTTGCG	1560
TTCAATTCCT	TAGAGTTGAT	GTTTCCAGT	TTTCAATTT	TCACATTTGC	ATAGGCATGT	1620
TTAAATTTCT	CAATCAACCC	ATCAATTTT	TTCTCTAACA	AGTTATTGGC	ATCTTTACTT	1680
GATGTCAAAA	TTTTCACACC	AACCCCTGCA	TGCTCAATCA	TATAGTAGAC	GGTCAATTTT	1740
TTCCACCAAT	AGTCATTCGT	TGAATTTTTC	AAGGTGTGTT	CTGTCTGTGC	TAATTCACCTG	1800
GCAATTTTCT	TCAACTCACT	GGGTCTTACA	TCATTGAAAA	GATAAGCTCC	ATTCAAATTA	1860
CCATCAATCA	ATTTCCCAT	AAAATCACTA	TACCAACCAA	TTTGATGATT	CAAAATCGTT	1920
TTGTCCGACT	CTTTTGAGG	AGTGATTTTA	TAGATAAGAT	AAGTTGAATA	ACTTGTGTGA	1980
TCCTTGACAG	TGTTTTTATT	CCTAATGCT	TTAATGTGTA	ATGGTACAGC	AATGAGAGCA	2040
AATAAAGCGA	TGAGAGCTAA	AATATTGCT	TTTCGCTTTT	TATAAAGATT	TGCAACAAA	2100
TCAGTACTAG	AATAAGTTC	AAACATGATT	TTTTTCTCT	TTGTTTATGA	GATACTAGTT	2160
TTCCCTTTGA	AGCATTTTTG	CTACAAATAT	AATCACAAGA	ACAAATCCCC	AGAATTGCAT	2220
TGTAAATAAA	TTGAGAAAC	TTTCTGAAA	GCTGCTTCTT	GGCATAAAGA	ATAGATTATT	2280
CAAGATGAT	AGGGATAAAG	CAATAGGAT	TGTCTTTGAG	CGATAGGCTA	CTTGACGAT	2340
GGCTATAAAT	AATACGCCGA	GTAAGAAAT	AAGCAGAAAG	ACTCCAATCA	TACCATAGTC	2400
GGTATACAA	TCCATGATAT	AACTACTTCC	GATACCATGC	CCTTTCAAGT	ATTCCTTGTT	2460
CAGACAGA	TAGATAGAT	TGTGGGCATA	ACTATTACTA	TCAATAGCTA	GTTCACACT	2520

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ATTGGTGTGA TGTTCAAAGG CTTTTCCTCC GAAATGGCT CCCAACTCC CCCTGC AAA	2580
ATAATCAAGA ACAGGACCAA AAGTAAATTT ACGGAAATCT CGGTAAAGGA GGCTACTGTT	2640
AAATAGAAAA CCTCGAGCCA GAACACAAA ACTAGTCCTT TGTTTATAGA TAAAGTCAAG	2700
TAAATATATCC GAGAAACCTG TATGGGAAAC TTGGACATTA TCCCGTACAT AATTGAGTAC	2760
TCCCATCGCT AACATGAGAA TAGGAGAAAC TACAAAAATC GCTAACTTTT CTTTAAACCC	2820
AATCCATTTT CTTTTTCAG TTTGCTCCCG CATAAAGTAA TAAACAAAG CAAATTAAT	2880
ACTTAAAAA AAGGGATTTC GTGTCCCAAT TGCCAAATGA ATAGTATTAG CTGCAATAA	2940
GGAGACAAGC ACTGCTGTGG CTTGCAATTT CTTTGGCTTG GTTGCCAGAT ACATACACAT	3000
TGCATAGACC GTAAAGGTAG ACATAAATGA GGTAAATTA GGCAGTTTAC TTTCATAAT	3060
TGCATAGTAG GCATAGTAGG AAGTCTGCAA ACGATACAAG AGCCGTTCAA ATAACCGAAT	3120
GAAATAGAAA GGTAAAGTTA GAAGAAAAAC TCCTAGTGAT ACAAGCGTA ACCGCTTGAT	3180
ATAAATCTCT TTTAGAGAT TTCTATATTT TGCTACTTTT ATTTCTTCC TAGCTATGAA	3240
GTAAACGAGC AGAATGCCCT CTGTGGTCAA GCCCAGAATC GAAATCATGA CAACATATAA	3300
GGCAAAACGA TAGGCTATTG GATGATAGGT ATCCAAAGCA CCATCCCTAA AATAATCAAT	3360
GGTCGGTCTT GATACAGAA ATACAAAAAT GGTAAATAG AAAATAAAA GATATTAGTA	3420
ATACTTGATA TCATTCCAAC AAGCAATTA GCTACTAACC AACAGAACA ATAAAGTAGA	3480
AAGTAAGCTA ACATTATTAT TATTAAACAG ATACACAAT CCACCTACTA GGTCAAGGC	3540
ATAACTGACT ATGGTCAAC TAAATAATGA TCGTTTCCCA TCAATCACTT GGTCAACCCC	3600
GTTCATAATG AATTTTITAG ATTTTTCAT ATTTTTCAGT AATAAGAATC GATATAAGGA	3660
AATATTTATG AATAGGGCCA AAGCACTAAT TCTTCTCCCT TTACGGAAAA TTGGATTCTT	3720
AGAAATAGCA AAGGCATGGC CTTTAAAAA ACGATGAATC TGAGATAGG CTTCAAACCTG	3780
TTTATATCTA TCATCTAGCA ACATCTTATC CAGAAATAAG AAGTGGCAT AGGCCAATCT	3840
GAAAAAAGCG ACCTCTTCA AGTCAGGATA GTTTTTCACA ACTCATATAT AAAACTTTTG	3900
GTAGATATCA ATATAGGCTA AATCCTTCTC TGCAATAGGGT TTGGTCGTAA TACTATCCCC	3960
TCATAGGAAA TAGTAATAAT AGGGTTTAGT ATTAACACA TACTTCTTGG CCAACTTGAT	4020
TAAATCAAAA TGGTAATAG CATCTTCGA AATCAACCCC TTAGGAAGG ATAGGGCACT	4080
TGCAATCTGT CTCTTGATTA GCTTATTGCA AATCGTCCA GGTATTTTTT CACCTATGAG	4140
GTATTCCTTT AGAAATGTTT GAGAAATCACA GACAAAAATG TCATCTGAT TGGCTGACTG	4200
TGGGCTTTCA TCATTAGCAT AGACATTAT GACACCACAG CTCGAAACA CCGCATCTTC	4260
TTGAATTAAT TGCTCATATA AGCTCTGAAT CATTTCTGGA TGGATATAAT CATCTGAGTC	4320

AATAAAATC AGATAATCCC CGTGAGCCTG CTTTCATCCCA TCATTTCGTG CTTGCGACAA	4380
TCCTTCGTTC TTTTATGAA GCACAGACAC CCTGTCACTT TGTTCAGCGA TTGAATCACA	4440
CAAGCGACCA CTTTCATCTG TTGCACCATC ATCAACAAGA ATAAATTTCCA GATTTTGATA	4500
GGTCGTCTTC TGAATGGAAG CTATCGATT TTTCTAGTAC TGCGCCACAT TATAGACTGG	4560
CACAAACACA CTAATTAATG CAGTTTCCAT GCTACTCCCT TAATAGTTT TCTACTTGT	4620
CGATTGTGTT TGTAAATGTA AATTGTGAA TGAATTGGCT AGCCTCATCG ACATCAAGT	4680
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GAGCTCCTAC	TCCCAAGCTG	ATGGCAAGGA	TAGGGGAGAG	AGACTGAACC	AAGATATATG	18000
TCCCAATTAC	AAGGGCCATC	AGGATTGCAC	TATAAATAAA	CAATAAAACT	ATGGCGAC	18060
TGCGATTGGA	ACGATTACCC	AGGTCCGTAA	TGCTACTCCA	ATTGGTTGAC	AGATTTTFAA	18120
CGTCTTTAAA	GTAATGGTGG	CAAGAAAGGA	TGACACTGGC	AATGATCCAG	ACTACAAGAA	18180
GGTAAATCAT	CGAAATGATG	GGCAAGCCTA	GATATAGAGA	AAGACCAAGC	AAAGTCAGAA	18240
CTGTGAAAAA	GGACTGGACA	GCATATATRA	TCCAAAATTT	CACCTTTCACA	TAACGAGCAA	18300
AGTCAAAGGG	TAAACTCTTA	AGAAAAATCAA	CATTTTCCCT	CTCCAAGGAC	AAGGCAATTG	18360
AATGCAGGCT	GGTGATATTG	TTATTTGACAA	CTGCTATATA	GAGAGCTATA	AAAAACAGGG	18420
GTAAACAGTA	TGGAGGATGA	ATGTCCTGAA	CTATCTGAGA	ATCTCGGATT	TTGGAAATCA	18480

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GACCGCATCAT	CATGAGATAA	GGAAGGAAAG	CACCTTGATAA	AAGCACTGTA	ATCACGCCAG	18540
TCCCTCTGCC	CAAGAGGGTG	AGGTGGTAGC	GTAAAAACCAT	GCGAAAAAAT	CCCTTTTTCAG	18600
TGGTTGAAAT	TCTCTCCCTTG	CTGGCAGCTT	CTTTTTTGAC	CTTCTCCTCA	CTATTAAGCA	18660
GGATCAGCTG	ATAAAAACGA	GGAAGGACCT	TCTTTTGGT	CAGATAAAGC	AGGAAGAGAG	18720
TTAGTCTCAT	CCAAGCGAGC	AGACCCACTA	AGGCTTCTGT	CGAAAAAGGC	TCCACTGCTA	18780
TTTTGTAAAA	GATATGAAGA	GGATAAAGGA	GAAATGGAAT	GTCTCTAACT	TTGTCAACAA	18840
TACTTCCAAA	AGTCGACTGA	AGAAAGAAGA	TAAATATTAA	AGGTATGAGA	ACTCCTATCC	18900
CAATCATCAC	ATTGCAAAAA	ATAGACTGAT	ACTTTCTGAA	GACCCTAGTT	TGAGCCAAGA	18960
AATGCACTGC	CCTACCATTC	ACTAGAGCCA	CAGAGACAAA	TAATAAGGTC	AAGGACAGTA	19020
GCATCAAGG	CAAAACCCAGC	CATAGAGAAG	GAGCTAGCCT	AATGTAGAGG	ACCAGAAAAT	19080
AAGCTAGGAT	TGGTACAATT	CCAGTTAGAG	CTGGCAAAAG	GACAGACAGT	CCTTAGCAA	19140
TTATAATCTC	TGATTCTTTA	AAGGCATAGG	GCCTATACGA	TACCAAAATCC	TTACTCTCAT	19200
AAAAGACATT	GTAAAAAGGCC	GTTAAAGAAG	TGAAAAGGCC	AATCACTAGT	AAAATAGCAA	19260
TCATCGAGCT	AAAAATAAAT	GGTATTTCTT	CAAAAAGAAA	ATGAATGGCT	ATATTACTAA	19320
AACAGATGAT	CATCAAGAGA	CTGGAAAAAA	TGTGAAGAACT	TAAGACTCTA	GCGGAAACAT	19380
TTACTTTTTT						19390

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18436 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCCTCG	TTACGACTT	TATCAAGATT	GGACGCAAGA	AGAAATTCAA	CATATAAAGG	60
AAAATATGCG	ACAATCTCCA	TGGCATACTC	ATTACCATGT	TGAGCCAAAA	ACAGGACTTC	120
TCAACGACCC	AAATGGCTTT	TCTTACTTTG	ATGGCAAGTG	GATCCTCTTT	TACCAGAAAT	180
TTCTTTTTCG	TGCAGCCAC	GGTTTAAAT	CTTGGGCACA	GCTAGAAAGT	GATGATTGGA	240
TTCACTTTAA	AGAACTGGA	ATCAAAAGTT	TACCAGATAC	TCCATTAGAT	AGCCACGGTG	300
CCTACTCTGG	TTCTGCCATG	CAATTGGGCG	ATACTATTAT	CCTATTTTAT	ACAGGAAATG	360
TTGCGGATAA	AAACTGGATC	CGTCACCCAT	ACCAGATCGG	TGCTTTGATG	GACAAGGAGG	420

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GTAAGATTAC	AAAGATTGAC	AAGATCTTGA	TTGACCAAGCC	AGCAGACTCT	ACTGACCACCT	480
TCCGCGATCC	ACAAATTTTT	AACTTTCAGG	GTCAATATTA	TGCCATTGTG	GGCGACAAG	540
ACTTGGAGAA	AAAAGTTTCT	GTTCGTCTCT	ACAAGCGTGT	CAATAACGAC	TACACAAACT	600
GGCAAGCAGT	TGCGGACCTT	GACTTTGCTA	ACGACCGTAC	TGCCTACNTG	ATGGAATGTC	660
CTAATTTGCT	CTTTGTAGAG	GAACAACCTG	TCCTTCTCTA	CTGTCCACAA	GGATTGGATA	720
AGAAAGTTCT	AGACTACGAT	AATATCTTTC	CAATATGTA	TAAGATCGGG	GCTTCCTTTG	780
ACCCATAAAA	TGCCAJAATG	GTAGATGTGT	CTCAACTTCA	AAACATGGAT	TACGGTTTCG	840
AAGCCTATGC	AACCTAAGCC	TTCAACGCTC	CTGATGGGCG	TGCTCTAGCA	GTTAGCTGGC	900
TTGGTTTGCC	AGATGTTTTCT	TACCCATCTG	ACCGTTTGA	CCACCAAGGA	ACCTTCTCTT	960
TGGTCAAGGA	ACTCATATCT	AAAGACGACA	AGCTCTACCA	GTATCCAGTC	GCTGCTATTA	1020
AGGACCTTCG	TGCTTCTGAA	GAAGCCTTCT	CAAAACGTTT	CCAAACCAAG	AACACTTACG	1080
AACCTTGAACT	CAACTTGGAA	GCTAATAGCC	AGAGCGAGAT	TGTCTTACTT	GCTGATAAAG	1140
AAGTAAGGG	ACTTTCAATC	AACPTTGACC	TTGTAACCGG	TCAAGTAACA	GTCGATCGTA	1200
GCCAGGCTGG	AGAACAGTAT	GCCCAAGAAT	TTGGGACAAC	TCGTTCTTGC	CCTATCGAGA	1260
ATCAGGCTAC	TACTGCTACA	ATCTTCAATG	ATFAACTCTGT	CTTTGAAATP	TTTATCAATA	1320
AAGGAGAAAA	AGTATTTTTCT	GGTCGTGTCT	TCCCAATGTC	GGACCAAAAT	GGTATCCTGA	1380
TTAAATCTGG	AAACCAACT	GGAACCTACT	ATGAATTAGA	TTATGGTCGC	AAAACCTACT	1440
GATGTGCGCA	AACCTGCGAG	CGTCAGTCTT	ACTACCGFTT	CTCGGGTTAT	CAATAAAAAA	1500
GGGTATCTAT	CTGAGAAAAC	CATCCAAAAA	GTCAATGAAG	CCATGCGAGA	ATTGGGCTAT	1560
AAACCCAACA	ACCTGGCTCG	TAGTCTGCAA	GGAAATCAG	CTAAGTTAAT	CGGCTTGATT	1620
TTCCCAATA	TTTCCAATGT	TTTCTATGCA	GAATTGATTG	ATAAATTGSA	ACACCAACTC	1680
TTCAAAAATG	GTTACAAGAC	CATCATCTGC	AACAGTGAAC	ATGATTCTGA	GAAGGAACGC	1740
GAATACATCG	AAATGTTTGA	AGCCAATCAG	GTGGACGGCA	TCATTCTTGG	TAGTCACAAC	1800
CTAGGAATCG	AAGACTACAA	TCGTGTGACA	GCGCCGATTA	TTTCTTTTGA	CCGAAACCTA	1860
TCGCCAGACA	TCCCCTGCTGT	CTCCTCTGAC	AACTATGCTG	GTGGGGTTCT	TGCTGCCCAA	1920
ACCTTGGTCA	AGACAGGTGC	CCAGTCTATC	ATCATGATTA	CAGGGAATGA	CAATTCTAAAT	1980
TCGCCAACCG	GACTGCGCCA	CGCTGGTTTT	GCATCCGTAC	TCCCAAAAGC	TCCTATTATC	2040
AATGTTTCCA	GTGACTTTTT	TCCCGTCAGA	AAAGAAATGG	AAATCAAGAA	TATCTTGACC	2100
CGGGAAAAAC	CAGATGCCAT	TTTTCCTTCG	GATGATTTGA	CAGCTATTCT	GGCTATTAAA	2160
ATCGCTCAAG	AATTTGGCAT	TTCTGTCCCA	AAAGAGCTCA	AGGTCATCGG	CTATGATGGG	2220

ACCTACTTTA TCGAAATTA CTACCCCTCAA TTGGCTACTA TCAAGCAACC TTGGAAGAG	2280
ATTGCTGTGC TCACATATGA TCTTCTCTTG CAAAAGATTG AAGGCAAGGA AGTCGCCACA	2340
ACTGGTFACT TCTTACCAGT TACGCTATTAT CCAGGAAAAA GTATTTTAAAC ACAAGAAAC	2400
TCAGACCGAT TCGTCTGAGT TTTTATGATC TTAAATTTTC GAGATAGCGC TGGCTGTCT	2460
CTAGGTTAAA GGTTTTATCT GAGATGAGGC GCTCTACTAG GGGAGCAACT TCAGATTAC	2520
TAGCCCCAGC TAGGAGAGCT AGGGATTGG CCTGTAGTTT CATGTGCGCT TGCTGGATGC	2580
CCGTACTTAC CAAGGCTTTG AGGGCTGCA AATTTTGAGC AAGACCGATG GACACGATAA	2640
TCTGGGCTAA TTCTCTGGCA GAAGGATTC CTAGTAGATC ATGACTGAGA ACTACACGTG	2700
GGTTGAGGCC GATAGAGCCA CCCTTAGTCG CTACAGGCAT GGGCAGGTC ATCTCACCGA	2760
CCAATTTCTC TCTTTCAGG TCCAGGCTCC AGCAGCTAAG ACCTTGATAG CGTCCATCTC	2820
GACTGGCAAA GGCATGGGCC CCAGCTTCA TGGCACGCCA GTCATTACCA GTGGCAATCA	2880
AAATGCGATC AATACGATTA AAAATTCCCT TATATGAGT AGCAGCTCGG TAAAGATCAG	2940
CCTGCGCAAA CTGAGTAGCC AACGCAATT TCTCCGCAAT CTCTCGCTCT TGATCCTTTT	3000
GGCGGCTCAA GTAGCGAAG GCGATGCGAC AGCTTGCACT CACCAGAGAA TCGGTGCGGT	3060
AGTTGGACAG GATTCCCATG AGACTCTGTC CCTTGACTGAG TTCTTCTAAG ACTGGTTTCA	3120
AGGCTTCCAG CATGGTGTG AGCATATTGG CACCCATGGC TTCTCTGGTA TCGACATGAA	3180
TATAAACAAAC GAGAAAGTCT GGTTCGCTT TTATCTGCTC GACATGCAGA TCACGCGCCC	3240
CACCTCCAGC TTTAACGATA GAAGGATAGG CTTGATTGGC AAGCTCCAAG AGCTCCGCTT	3300
TCTTGCTGGC AATCTTCTCT TCGGCTAGTT TAGGATTAGC AACTTGATAA AGGCTACCT	3360
GCCAATCAT CTGTGCTGA TGGACTTGTG CAGTAAACC ACCTCGACGC TTGATGATT	3420
TGCTGGCATA GCTGGCGGCC GCAACCACAG AGGGTCTTC TGTCACATAG GGAACGGTGT	3480
ATTCTGACCC GTTGACAAAT ACCTCCGGAA CCAGTGAATA AGGCAGAGAA AAGTTCCCA	3540
CTACATTCTC ACTCAGCTGG TCTGCCACAG TCACGCTCAT CTGTTTATCC TTCTCCAGAC	3600
TAGCTTGTCT CTCAGGACTA AGGAGCGCCT GAGCTTTTAA CAGCTCGAGG CGCTCTTGGT	3660
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GCCTTGTTGG TCGAGATTT CAACCAAGGC AAAATCTTGA TTTTCTAGC CAGCAAACTG	3780
GGCAGAGTGA GTTTCATCCA AGTTTACTTC CTCAAAAAG ACCTTTTTCAT AGCTGCAAC	3840
GGATAGGGCA GTTCGTTGGT TGAGCTTGGT CAACCGGTCT TTATCCAAAT AAGCTTCATA	3900
TCCTTCAACC AATTCAACC TGAAGAACTC AGCCACAGCT CCACCTCCGT AACTATAAAG	3960

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GGCGATTTTA	TCCCCAGCTT	TCAAGCTATC	TGTATTTTCC	AAGAGAGACA	AAAGTCCAAG	4020
GAAAAGTGAA	CTGTGTGAGA	TATTCCCCAC	CTTTTGACTG	TAGAGAATAG	ACTGGTCAAA	4080
ATGCTTTTGG	AAGAGGCTCT	TTTCTCTCTG	AGGCAGGCTC	TTATCCATGA	TTTTTTTCAA	4140
GCCTTTTAGC	GC'TAATTTAG	GATAAGGCAA	GTGGAAACAA	ACAGCCGCAA	AATCATCCAA	4200
AGTAAAGCTGG	TAGCGTTTTT	GATATTTCAAG	CCAAGTCGTT	TTCAAACATAT	CCAAGTASTG	4260
TTGGGTAGAA	TAGACACCAT	TTACATAAAG	AGTTGTCGAG	TAATTTGGTC	GCCAGAAATC	4320
CATGATGTCA	CGGGTCTGAG	CTACATTTGTC	ATTATTTAAAG	GCCATCATGC	GTGGATTTTG	4380
TGTAAATCAAC	ATAGCTACAC	TTCCAGCACC	TTGAGTTGGT	TCTCTGGAG	TTTCAATACC	4440
GTATTTGGCA	ATATCACTGG	CAATGACCAA	GACCTTGGAC	TCCGGAGAAT	TTTCCACATG	4500
CAATTTGGCA	TAATGGAGGG	CAGCAGTCGC	TCCGTAGCAG	GCTTCTTTAA	TCTGAAACT	4560
ACGAGCAAAG	GGCTGGATGC	CCAGCAGGCC	ATGCACAAAG	ACGGCCGCAG	CCTTACTCTG	4620
GC'CAATCTCT	GACTCGGTCG	CCACAAATGAC	CATGTCAACT	TCTTGTCTTT	CTTGCTCAOT	4680
TAAAAATAGAG	TCACTAGCAC	TGGCCGCCAA	GGTCACGATA	TCTTCAGTTA	GGGGCGCAAT	4740
ACTCAATTCC	TTGAGTAAGA	GTCTTTTACT	TAATTTTTC	GGGTCAATTC	CCCTCGCTTC	4800
TGCTAAGTCT	TGTAAATTTCA	AGACATATTG	ACTGGTCGCA	AAACCAATCT	TATCAATACC	4860
GATTTGTATA	TTTACCTCTG	TTTTATCATT	CATGTAAAAA	ATCGTTCTAT	ACTATTTTAT	4920
CACAAATGGC	AGTAAAAGAG	AGAAAAAAGA	CTTGATTCAAC	CAAAATCAAGC	CTCTTATTTG	4980
TCTCATTTTT	AAAGAATGAT	TAGTTGCTAG	AGAGTTCAAC	GATATAAGTA	GC'TTTATAAG	5040
CTCAATTCAC	AGTTATCAGC	TCCGTGGAGG	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT	5100
CATCTACAAA	TTTTTGATAA	AACTGACTGG	TCGGAAATTC	TCTGACATCC	TTATCAAATG	5160
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GAAACTCTGA	GCCCGAAGTA	GAAACCATGA	CTGGGATAAA	CAACAAGGTC	AGTAGATTTA	5280
CAGACATAAA	GGAAGTAGT	AGACTTCCCT	CAAACTAGAG	ATCCTAGTTC	ATGATTAACA	5340
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GAAACCATTT	TAAACGTTT	TACTTTGGCA	AAGATGTTCT	CAACCTTGCT	TCTCTCCTTA	5460
GATAGCGCAT	GGTATCAGGC	TTTTATCTTA	GCTGTTAGCG	GCTTGAGTTT	GCTGGATTTA	5520
CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTACGCCAAG	5580
ACTTTTACCAG	CTTGTCCGAT	ATTTCTGCAA	CTCATTTTGA	ACAACTTCAT	ATCATGACTA	5640
TAGTTCACAG	CGATATCCAA	AGAAACAATT	CTCCCTTGAC	TTGTGACANT	CGCTTGAGCC	5700
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 CTTTGGTGGG TACCAAAATC AGCCGCAATT TCTTCATAAG TCGCGTATTC TCOCACATAT 5940
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 ACCTGCAGGC GCTGTGTCAC CTCTACAAAC CTCTAATTA CTTCTCTTAA TCCCAACAAT 7500

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TTGAATCAAA TTGTTCTTAG TAAACTCCAA GCTAGAACCA ATGTAACTCG GCATGGCAAC	7560
ACTTTGTAACT TTTTATAGTA CTGTCAAGAC AATTTAGTA GGTTTACTCA CATCATAAAT	7620
CGTTCCGGCA CCTGGACTTT GTTTCATAAT CGTTCCTGGT TCGGTTTCGC TGGACTCTTC	7680
TTCTCTATAC TTAATCAAA TCTCAGGAAC CTCTCTCTGC TTGAGTCTGC AGATTACTTC	7740
TGTAGAGTTC CGTCCAAAT AGTTCCCTAA TTGAATCGTC TAGCTTTTT TAGCTACTGT	7800
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CAGGACCGTT CCAGCCCTAC TCTCATTOGA CTCTCTCTCC TCAATTTTAA TCAAAATATC	7920
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CTGAGAAAC TTGCGCAAG TCTTGGTATC TGCTTGGTCT GTTTTCATCA AGATTAACTT	8460
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CGAGCGGTAG CGATTGGTCA ACTTTTTAGC AGTTGCCTTG ATAATAACAT TTTCTAAAGC	8580
CTGAGGTACA GATGGATTTT CTGCAATAAC GGAAGCGAGG GGTTTCTGGA AATGCTGGAG	8640
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TCCTGACCA ATCTGTTTTA CAATCCGATA GCGTCCGCCA AAAATCTTGC CGATTGGAT	9300

CATTCTGCAT	CCTCCCTCGT	CATGAAAC	AGGGCAACG	TAATGTTGTC	TAAACCTCCT	9360
GCATTGTTAG	CAAAACGAAC	AAGTGTCTCC	GTTTATCTG	CTAAAGGAAT	ATCACTGGTT	9420
ACAATATCAC	GAATCTCACT	GCTGAAATC	ATGTTGGTCA	AGCGCTCACT	ATTGAGCAAG	9480
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TGACCAGCCT	TGAGCAATTC	ATTAACCAAG	GAATGATCGC	TCGTCAACTG	ATGGTATTCT	9660
TCTCCACGAA	TCAAGCCGAT	ACGGGAATCA	CCAATATGAG	CATAGATAGC	CTGATTATCA	9720
ATAATAGCAA	GGACTTCCAA	AGTAGTTCCC	ATGCCCTCTGT	AAGCTTCATC	CTGACCAAGC	9780
TGGTGAATCT	TTTGATTTTC	AATTCTCTAG	TAATGGGCGA	ACCATTCAAG	CACCTCATTG	9840
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GCGATATCCC	CTGCGCGATG	ACCTCCCATC	CCATCAGCTA	AAATAATCAT	GGTAGCTCCA	9960
GCTCTATTGA	CATAGTGGTT	GACATAGTCT	TGGTTATTIG	TTGGTTCTTG	ACCAACATCT	10020
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TGATGAAGAA	TCCATCACTT	CCATACAATT	CAGGTGTAAT	GAGGATACAG	CCGTCTTTCA	10140
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TACCACCTTT	GCCTAGTATT	TGACAAACAC	TACCTAATAT	TTCTAACTGA	ATTTCTGCA	10320
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CTTCACGCAA	GATACGGCGA	AGGACAGCGT	TGACCAATTT	TTCACCTGCT	TTTTTACGGA	11040

700	
GTTCGGCCAA TCCACTGCT TCAATTAACCA CAGCATGATC TGGAACTCTG TCCAAATAGC	11100
GGAGTTGGTA GGCACCTCATG AGAAGAAGGA CATAGAGCCA GCTGTCTAAC TGGTCTCTGT	11160
CTTCGATAAA GTGGAGTAGG TACCAATCCA GAGTCAGTTT ACCGGCTACC GTTCCATAGA	11220
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ACCTGACTCG TATCTCGCG TTCAAGTTTG ATATCACCG CAATATAGGC AGGCAGAGTG	11760
TCCAAAAGCA AATCACGACC AACTAGCGCC AATTTTCAA ACAAGGTGCC AACATTGTCC	11820
TCATCTGTGA TCGGAATGCT GCGACGAGAA ATCATATCTC CTGCATCCAT TTCCCTTAAC	11880
ATTTCCATGA TGGTCACACC AGCTTCTCA TCCCTTGAA TCAAGGCATA ATGGATAGGC	11940
GCACCACAC GGTGTCTAGG AAGGAGGGAG GCATGAACGT TGACAGCAAA GTCCATGCTA	12000
TCAAGGAGTT TGCTGGGAG AAAC TGCCCA AAGCAGCAG TCACAATTCC ATCTGCTCCT	12060
AGCTTCATAA GATCTTCCAT CTCGTGACTT CCAGATAATT TTTCAGGTTG GTAGATAGAT	12120
AGTCCTGCTT CCTTGGCAGC CTGCTTGACT GGGGTTCTT GGATAACTTT TTTACGACCA	12180
ACAGCACGCT CTGGCTGGGT CACAACGGCT AGAATTTCTT AACGCTCATC TGTCAAAGT	12240
CCTTTTAAGA CTGTGCTGA AAAGTCGGGG GTCCCCATAA AGATTAGTTT TGTATATCT	12300
TCTCTCTCTT ATAAAAATTG CTGCGGCTCA TGGTCAATGC TGAGACGGAG CTCACATTTT	12360
TCCCGTCTCT GAGTCAAGGC TAAAACTGG TTGAGGGTGG ACCCCAGCTC ATCTTCTAAA	12420
CGGTATTAAA TTAATACTGT GTAAATGATG AGGTTGTGG TACGGCAAT CGGTTTGGC	12480
GTTCGCCCAA GAATGGGACT GGTCTCTGAC AAGCCTGACC GCAAAATGTT CATGACTTCA	12540
TAGGCACGTT TGAACACCTC TTCTTCTTTC TTGTGAGAAA GGGTAATACC AATCGTGAAA	12600
TAGTAAGGTG GATAGCGGAG TTGTGCTCTG ATTCCCATTT CATAGGCATA AAAGCCTTGG	12660
TAATCTTGAT CCTTGGCAAA TCGAATAGCA TAGTCTGCG GATTGTAGGA CTGTATCAAG	12720
ACTTGACCTG CCTTTCTCAG CCGACCTGAT CGACCTGCCA CCTGAGTCAA GAGCTGGAAG	12780
GFTCTCTCAG AAGAACGGAA ATCAGGCAGA TTCAGGCCG TATCCGCAAT TAGAACTCCG	12840

ACTAGGGTAA	CATGGGAAA	ATCCAAACCC	TTTGCANTCA	TCTGAGTACC	AAGTAAAATA	12900
TCGGCTTC	CTCGCCAAA	CTGCTCAGC	AAGGCTGGT	GACTGCCTTT	CTTTCGAGTC	12960
GTATCCACAT	CCATCCTCAG	AATGCGAGCT	TGGGGAAGA	GTTCTGCTAG	CTCATCAATA	13020
GCCTTCTGAG	TTCCCTCC	ATAGTAACGA	ATACTCGGC	TCTTACAGTT	AGGACAGACC	13080
TGAGGAATAT	CCTTCGAGAA	ACCCACAATA	TGGCAGTTCA	TAGTCTTGGT	ATCCATATGC	13140
AAGGTCAGAG	AAATATCGCA	GTTCGGGCAA	GTATCCACCG	TCCCAACATC	CCGACACATG	13200
ACAAAGCTAG	AATAACCACG	GCGATTGAGC	ATGAGAACCA	CCTGCTCTTT	TTTAACCAGA	13260
CGGTCTTGGA	TAGCCTCTAG	CAAAGGAGGC	GTAAGTPTG	ACGTCTCATT	TTGTCCGATA	13320
TAGTCTCGAA	AGTCAMTCAC	TTGAACCTCA	GCGATTGTAG	CCAAAGGATT	GGCAGCTTG	13380
GTTAGACGTA	AGTGTGTGATA	CACCCCTTTG	CCAGCACGTG	CCCGCTCTC	TAAGCTCGGC	13440
GTTGCAGATC	CAAGTACCAAG	AGTTGCTTGA	TTATACTAGT	CCCGTAAAT	AGCTACCTCT	13500
CTGGCATGGT	AACGGGGATT	GCTGCTCTGC	TTATAAGCCG	CTTCATGCTC	TTCATCAATA	13560
ATCATGACAC	CCAGATTTTT	CAGAGGAGCA	AAGATAGCAG	ATCTGGCAGC	AACAACAAT	13620
TGGGCATCGC	CACGCTCCAC	CTTCCGCCAT	TCATCATACT	TTTCACCAT	GGATAATCCT	13680
GACTGAAGAA	TGGCTACCTT	GTCCCCAAAA	CGTGCTATAA	AACGCTCGGT	CATCTGAGGA	13740
GTCAAGGAAA	TCTCAGGTAC	CAGCAAAATA	GCTGCTTTGC	CTTATCCAG	GGCACCTTGG	13800
ATAATCTGCA	AGTAAACCTC	GCTCTTCCCA	CTTCTGTAA	TCCTTGAAG	TAGAAGGGA	13860
GGTTGAGAAC	TGCCAATAGA	ACTCACAACC	GCATCACGCG	CCTGTCTTGG	TTCTGGATTT	13920
AACTCCAAAG	GCTACTTGC	TTCAATTCCT	TCAAAATAAG	CAGCCGAGCG	TTGAACCTCC	13980
TTTTGGACTA	TGCTAACAGC	ACCTTGATCC	ACAAAGAAGT	TGACTTGTCT	TCGCCAGTAG	14040
GACTCTAACA	AGCTAGCCAA	GGAAGCGCTC	TCTGGATGAG	ACAGCAGATA	ATCTCTCAGT	14100
TCCAACCTTT	TCTTGGCAGC	TGTAGAAATC	TCAACACCTT	CTAATTGAGC	ATGGTCAACC	14160
TCATACCAAG	ACTGGGTCTT	GACCTCTTTT	TGATCGAGCT	CCTGATATTC	CAGACCAAGC	14220
AGGCCCTTTT	TAGTCAAGCG	CATCATTTCA	GCTTCTTGG	CAAGGTCTAG	TGAAGAAAAJ	14280
GCTAGOGAAT	CTTCTGAACC	AAACAGGCGC	ACTGTTCTT	CCTGACTCAA	GCCTTCAGA	14340
GGATAGAGAA	TCTTGTGATA	GCTAGAAATC	AGAAACCCCTG	GAAGCATGGC	CTTGAGGATA	14400
GAGATTTTGT	AGGAGAAGAC	AGATTTCCGT	AACTCCTCAG	CCAGCCAGAG	TTGTTCTGGC	14460
GTGAGAACAG	GAGAAAAATC	CAGCACCTCT	GCAATATCTT	TTAAATCTTG	CTCCATCTCT	14520
TCTCCATCTG	ATTGGGACTT	CAAAACCAAG	ACAATCCCTT	GAATCAGGCG	ATTACCCCTTA	14580

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CCTAAAGGCA	CATGAACCCG	CATCCCAACT	TCCAGCATTC	CCTCAAAATTC	CTCCGGAATC	14640
CTGTAACTAT	AGGGCTGGTC	CGTCTGCATC	AAGGGACAT	CTACGATAAT	CTTAGCTAGG	14700
GOCATCTTCT	CACCTCTCC	TGTGCAGTAC	ATCTTGCAG	TAGAAAAAT	AAGATTGAGT	14760
CCCCCAACC	TAAAAATTTT	TCACCATCTT	CTTTTCTTT	AGCAATTTGC	TCTTTGATT	14820
TCTTTTCTTC	TCTCTCTTTG	CGGCGTTTTC	CTTCTTGCAT	ACGGGACGC	ACTGCTTCAC	14880
GTTTTCTCTC	TGGATCTGGG	TGAATTGTAA	CGTTTCTCTG	TTGCAATTTCT	TCTAAAGGCG	14940
GAAGAGTTGA	TTTTTTCAGAC	TTGAAACCTT	GAGTTGCTGG	GGCACCTGCT	TCCAATTCGT	15000
GGGCACTGTT	TGCTTCCAAG	ATTACGAGTG	AATATTTTGA	AGGAACCTTG	TCGAGCAAGG	15060
TATCAATAGA	GCTTTTAAAC	ATCATTTTGT	TGTACCTATT	TTCTAAATTT	TATCGGCTAG	15120
TTGGAGATTT	TGGTAACATC	TCCGTATAGT	GACCAATGAC	ACGATCCACA	CAGAACTGTT	15180
CTGCTTCAAT	CACACATTTG	ACACGTTTCA	CAGCTTAGGG	TACCTGATCG	TTGACAATCG	15240
CATAATCATA	CTACGCGATG	AGGGCAATTT	CTTCTTGGC	CTTTTCTGAT	CGTTGGGCAA	15300
TCACTTCTCG	ACTATCTGTT	CCACGACCTA	CCAAGCGATC	TTGCAATTTCA	TCCAATCTG	15360
GTGCTGTCAG	GAAGATAAAG	ACAGCATCTG	GAACCTTTTT	CTTGACCTGA	AGAGCACCTT	15420
GAACCTTCAAT	TTCAAGGAAA	ACATCGATTC	CCTTGTCCAA	GGTTTCAATG	ACATAGGTCA	15480
GAGGAGTTCC	ATAGTAGTTA	CCGACATATT	CTGCGTATTC	CAACATCTGT	CCTTGACGAA	15540
TCAGCTCTTC	AAATCTTCTA	CGAGTAGCGA	AGAAATAGTC	AACACCGTCC	ACTTCTCCAG	15600
GACGTTGTGC	GGCTGTCTGT	ATCGATACAG	AATATTGAAA	TTGGTTTTCA	GAACCTTCAA	15660
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TAATGGCAAA	AAGCCAGATT	ATCCTTTTACA	GTCTTTCTAT	CTAGTGTAAC	AAAAAAGCAG	15840
TAATTTTTCA	ACTGCTCTTT	CTTATTTATT	TAGCATAATC	TACTGACGGA	AGCTCGCGAA	15900
TCACGGTTAC	CTTGATATTT	CCTGGATAAT	CGAGATTGTT	TTCAATTTTC	TTACGAACTT	15960
TGTGAGCCAA	GATTTGTAAT	TTGTGCTCCT	TGATTTTTC	TGGATTGACC	ATGATACGAA	16020
TTTCACTGTC	TGCTTGAAGG	GCAAGCTAG	TTTGACTGCC	TTCAAGGCG	TTAGCAATTT	16080
CTTCCAAATC	ATGGAGACGC	TTGATGTAGC	TTTCAAGAGA	CTCACTACGA	GCACCTGAC	16140
GGGCTCGGCT	CAAGGCAATC	GCTGCAGCGA	CGATACTGTC	TATCACGCTC	TCAGCTTCAA	16200
CATCTCCGTC	GTGACTAGCA	ATCGTATTCA	CCACAACTGG	GGGTCTCTGT	TACTTACGGG	16260
CCAAITCTCA	ACCGATTTC	ACGTGGCTAC	CTTCAACCTC	ATGGTCAATG	GCTTTCCCGA	16320
TATCGTGAAG	GAATCCAGCA	CGACGGGCAA	GAGCCGCAAT	TTCAACCAAGT	TGCTCGCCAA	16380

TGATACCAGC	CAACTTAGCA	ACCTCAATCG	AATGGCGCAA	AACATTTTGT	CCATATGAAG	16440
TACGGAACTG	CRAACGTCCC	ATAATCTTCA	TCAAGCTCTGG	ATGAAGGTTT	GCCGCACCAA	16500
TTTCATAGCG	AGCAGCCTCA	CCGTATTAC	GAATCTTATT	GTCAATCTCT	TGACGGTTTT	16560
TCTCAACCAA	CTCTTCGATA	CGAGCTGGAT	GTATACGACC	ATCTTTGAGC	AACATTTCCA	16620
TAGTCATACG	GGCAATCTCA	CGACGAATCG	GATCAAAATCC	TGACAAGGTC	ACCACTTCTG	16680
GTGTATCGTC	GATAATCACA	TCGACCCCTG	TCRAACTTTC	AAAGGTACGA	ATGTTACGAC	16740
CTTCAGACC	AATAATGOST	CCCTTCATAG	TATCCTCTGG	CAGATGAATC	GTTCAGTTTG	16800
TTGACTCCGC	TACATATTCA	CCAGCGATAC	GTTGCAATAGC	TTGAACCAAG	ATGTCCTTGG	16860
CCATTTTGTG	AGAACGTTCC	TTGACCTCTT	GCTCAGCTTC	GCGAATGCGA	CTGGCAATCT	16920
CCCTGGTCAA	GTTTTCTCT	GTCTGAGCCA	AGATAATATC	TCGTGCTTCT	GCCTGAGACA	16980
GCGACCAAT	ACGCTCTAGT	TCTGCTCTTT	TTTGTCTTTC	GACTTCTCTT	AATTGCTCTT	17040
CAGCGCATC	AAGGTTTTTC	GCTCTATCAG	AAATACTTTG	TTCTTTTGT	TCAAAGTGT	17100
GTCTTTTACT	CGTCAAATG	TCGTCTTAC	GGTCAAGGCT	AGTAGCTCTC	TCTGTCAAAC	17160
GACTTTTGGT	TTGTTTGAAT	CTTTGACGTT	CTGATTTGAA	TTACGCGTCC	ACTTCTTAC	17220
GGTATTTTCT	GGCTTCTCT	TTGGCCTCCA	ATAGTGCTTC	TTTTTTAAGA	GACTTGCTTT	17280
CACGTTTGGC	TTCAFTAACA	AGTAAATCCG	CTTCACGCTC	AGCTTGTCGA	CTTAATTTAG	17340
TTGCTTCTTG	TTGACATTT	AAAAGCATCA	ACTCTGCAGC	TTCTGAGAT	GATTTTATCT	17400
TAGCTGAGAT	GCTGACATAT	CCAATGACTA	AACCAATGAT	GACGCGAAAA	ACAGCAATCG	17460
CAGCGACAT	GATTTCCATG	TTTTTACCTC	ATTTTATTGT	TATTCGGAAT	GACATACATT	17520
CTTTTACATT	CTACCATAAA	AAAGTGATT	TCACAAAACCT	AAAATAGAAT	ATGTTTGGAG	17580
GAATTTGGAA	CACATTTACC	AAAATAAACT	TGTTGTTTAG	AAATNGTAGT	TTAGTAGAGA	17640
CTTGAGAAAA	AGCCTACCTT	TCAATAGACT	TAGTAATGAT	CTTTAAAGGA	CAAGAAAGCC	17700
ACGCTATCTC	CATCCATCAT	ATAAATCAAG	CGAATTTCTG	CATCAATAAG	CCGTGAACAG	17760
GCTCTTGGT	AATCATATTT	GAGTGGTTCT	GTTTACCTTA	TTCTGTATAA	GGGATCACGT	17820
TGAATATCT	TGATTAGTTT	ATTGATCTTT	TTTAAAGTTT	TCTTATCCTG	ATTTTGCCAG	17880
TAGCAATAT	CTGCCAGGC	ATCTTCTGTA	AACCTGAGCA	GCATTTCTTA	CTCTCAATA	17940
ACATGGACCT	GAGTACTTCC	AGCACGAAT	TGAGCCATTC	CTCGCAAAAC	CTTATCAGAA	18000
AGTTCTCTAT	TTTGAGCAAT	TCTCAGGGTT	TCTTGATAC	TATCCCACTC	ACTCTTTGAA	18060
AGGACTACAA	TGCTCTCATC	TGGATTTTTA	TTGACCACCG	TCAAAGGCTC	AAATTCATCA	18120

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TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCCGAATG TTGAGTAAAG GACTGCTTCC	18180
ATAACCATAC CTCGTTTTAG CTCTTTTCCA CTATTTATACA CGAAAAGAAA GAAATTTGCA	18240
GGAACCTGTA CAAGATTTTC TTTTCTATCT ATTATATCTC AATGAAATCT AAGAGCAAA	18300
CTAGGAAACT AGCCGACGGC TGTACTTGAG TACGGCAAGC CGACGTTGAC GCGATTTGAA	18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCTACCTT TCGGTAGACT	18420
TAGTTTGTTT CTATTC	18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7001 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTCTA TCACAGATA TATCCGTAT GTTGTGGAG GTATTGAAAT	60
AACGTCCTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAACTC TTTTCGAGAC	120
AGAAATTTTG AATGAAGATT ATCCTATTTC AGAAATCAAT TCCACCATT CCAATATGAT	180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAAATTA CTTCGATTTC GCTTATCAAT	240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACAAACCCA TATGGGAATC	300
TTTTAATTTA TTAATGTAA TTAAGAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT	360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCGG ATAACCTTAT	420
TTTCCPACAC GCTGGATTAG GTATTACAC TTCCTTTTTC ACAAAAGAAA AATAGGAGC	480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGCAATA	540
TTTGGAATGC GGAAGAAAAAG GTTGTTTACA AACATATATT TCGGATGCTT GGTAAATCAA	600
ACACGCCCAA TTATTATTTA AAATTTCCCA ACTAAGTGA CTAAAAAGCC TTGTAAAGAC	660
TGAAAAAGAC ATTACTTTAG ACACCTTTT AACGGCTTAT AATTTAGGCG ACTCCGCTT	720
ACGTCAACAA ATTGATTAAG GAGTCAATTT ATTAGCCACT TCTATTGCAA ATCTCCTCCT	780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC	840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAAAT	900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGAAGT ATAGGAGCTT GTGCATTAGC	960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA	1020
TATTAGAAAT CTATAGACCT GTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT	1080

AGACAAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTGAGTG	1140
ATTATATATTA AATAAATCTT TCTTCTAGCT GCATTTTATT ATTATAAAAA CATTCATCAT	1200
AACCCCCAGA ACTTAAATAA CAATTTTAT TCAAGATACA TACTCCTAGA ATAAACTTTA	1260
TATGAAATTC TCATTTTGT TTTTACAAT CTCTTAGTT AAATCTTGT TAAATATGT	1320
TTTACATATA GTATTTAGCG CCACATAGTA CTGAACCTCT TCCAAAAACG GTTATTCCTC	1380
TTTGAATAGG CGCTTATCAC AAGAAAAGCA TCTCCACGTT TCAACTTCAT ATGGCTCAAA	1440
AACAATCAAT TGATGCTAAA ACCTGTACCT AGATGTTCG GTTCATAAAA CCATGAAACT	1500
GTAAAAGTGG ATGAAATGGA TAGCGATAGT CAAATCAAGA GGCATCATAA CTCTAAAAG	1560
TCACAATATA TAAGTTTATC CTGGGAAAAA TATCATTTCTA ATGTGTTGAAA TCCCTACATG	1620
AAAAGAAACG TCATAAGCTC ATGAAACAAC GAATACAGGT ATCAAAACTA TGACAAAACA	1680
AATCCCTAAA TTTACTAAAG ACACCTGCTCA ACTTTACACC TGTAAATGGT TGTGTATAA	1740
TAAAGTTACA AAGATGTACG ACCACACTGT TGTAAATCAT AGTGTTCGCG AATATATTAC	1800
TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAAAG AATATGCTCA	1860
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AATACAGACA CTGTTAACAA CTGCTTCAAT TTCTTACCAA CATATTTAGG AACAGGATAA	1980
GATACAAGAG TATTAATCCA TAGCTCACTT CTATACCAAT CTAAGACAAA TAAGCTAAAA	2040
AAACGATTGA TAATAAGCAA ATAGATTCCA AATTTTCTCT ATCTGCTCAT TTTAATAAAC	2100
AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTGTGCAA ATCACACGGA AATTTCTTCT	2160
AAAATTTATC TCGTTAGGCA ATCAAGCAAA AACTCGACGA TAGTACAAAC ATTATCATAC	2220
AGGATTGACT TCTTAAATTA TATACCTTAG TAAGGTTTTC GGATAAGAAA AAAGGTTTCT	2280
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AGCAACAAGA AGATTTTCAG TATCATCTTA TAGATACGAG CTAATTAAGA AAAACTACAT	2400
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TACGATTTATA TGATACAGGC ATCCAAACAA TCACAATTCA ACGCAAGCCA TTGGTTTCGC	2520
TATTTGCGAA AAGTTATTTT TGAAGACTAT TCTTATTTAA CAAACCAAGA TGTAGAAAAG	2580
TTGCTAGACT CCAAGAAGCT AACCCTTTT CAAAAAATTA GCTTGAAGTA TGCTTTTCAA	2640
GAGCATATCT CAACTCATAA ATATGTGATT TCAATTAATA AACCTGCTAA GTTAACCAAT	2700
GTTCAAAAAT TGATGGAGAA ATACAAACAT GGATAAAATG AAACCGSTCT TCCAAACCTT	2760
AAATAAGGAA TTAATTCAGG AAAATCTGAC TTTAACAAAT ATCTGTGTGCG GTGGTTATGT	2820

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CTTAGAATAT CATGGTTTAC GTGCCACACA AGATGTTGAT GCTTTTATGG CTCATATAAT	2880
TTTGTAGTGG GTAAATCCCC TATGGATATT ATGGAGCCTA TTTTGTGTGA GAAAAAAGT	2940
CCCATATGAC CTATAATGAA AAGCGACAAA ACAACTCAAT AGAAGAATC ATATGGAAAC	3000
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CATCAATTAAG GATACACACA AGGAAATCAT CGCCAAACTG GACTACGAG CCCATCTTG	3120
CCCTGAGTGC GGAACCAAT TGAAGAAATA TGACTTTCAA AAACCGTCTA AGATCCCTTA	3180
CCTCGAAACA ACTGGTATGC CTCTAGAAT TCTCCTTAGA AAAAGCGTT TCAAGTGCTA	3240
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TCGTATTATC AACCAAAAAA TTGCGCAAAA GTTGATTGAG AAGATTCTTA TGACCGATAT	3360
TGCTCATCAG CTGGCCATTT CAACTTCAAC TGTATTGCG AAGCTCAATG ATTTCACTT	3420
TGAGCATGAT TTTTCCGTC TTCTGAGAT TATGTCCTGG GACGTTGAAA CAGTCCGGGG	3480
AGTGACTGTT TCAATCGGA GATGGAGATG AGCTTTATTG CGCAAGATTT TGAAGAAGTC	3540
GATATCATCA CTGTTCTTGA AGGTAGAAAC CAAGCTGTCA TCCGAGATCA CTTTCTTAAA	3600
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TATGACTTAG CTAGCAACT TTTCCCGTGT GCTAAAATCG TTCTTGATCG CTTTCACTT	3720
GTACAAATC TTAGCCCTGC TATGAGTCGT GTGGGTGTC AAATCATGAA TCAGTTTCAT	3780
CGAAAAATCC ATGAATACAA GGCTATCAAG CGCTACTGGA AACTCATCA ACAGGATAGC	3840
CGTAACTCA GCGATAACA TTTTATTCGG CCTACTTTTC GTATGCATTT AACCAATAAA	3900
GAGATTTTAG ACAAGCTTTT GAGCTATTCA CAAGACTTGA AACATCACTA TCAGCTCTAT	3960
CAACTCTTGC TGTTTCACTT TCAGAATAAG GAACCCGAGA AATTTTTCGA ACTTATCGAG	4020
GACAATCTTA AGCAGGTTCA TCCTATTTTT CAGACTGTCT TTAAAACCTT CCTCAAAGAT	4080
AAAGAAAAGG TTATCAACGC CCTTCAACTA CACTATPCTA ATGCCAACT GGAAGCGACC	4140
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AAAAACCGA TTTTATTGCG TCTGAATATC AAAAAAGAAA GGACAAAAAT TGTCTTTCT	4260
CGAGCTTAGC TTTTTTTCAA CCCACTACAG TTGACAAAAG GCCGGAATAA GGAACAGCCT	4320
TAGCTTTTCT TTAATTTCTT TTTATTTCCC TGTAGTAAA CGTGCTAGCT TCCACAAAA	4380
AAACAGGATT CCCAGAAATG CAGTACCAC TAGCCACAGG TACAAACATT GAGAGGTTGC	4440
AACACGCGAT ACAGATGTGC CTTCTTTGCT AAAAGCAACC CTCGCAACTG CAGCTGTTTG	4500
TGATCTGAT TTTTGATAAA CAGCGACTCG TTCAAAATTC ACTAATAAGC GTTTATTAAA	4560
GGTAGGAATC GGATCGCAGG TTATCAAGGT CATGATATTT TTAGAGCTAA CCGATTCTAA	4620

TTTTTCCCAT	TCGACGGTA	AAATAATCTC	TGTGTCCATC	ATCTGATAAT	CTACAATTTC	4680
CTGGCCATTA	TCATAATAAA	GAGCATCTCC	AACTTTTAGC	TGATCCAAAT	GGCGAAAAA	4740
GACATGGCTT	GGCTCTGCAC	GGTGCCACG	AATCACTGAG	CGAATCCCTG	TACCATCCAG	4800
AGCAGCGGT	GTACCATCCA	CATGAGCCAA	GCCCATCCCT	AAATGATGAT	ARTCTGCTCC	4860
CAAAATAAAC	GGCTCCATGA	TTTCCAAACT	TGGAAATAGC	AGATAACCAT	AGACTGCATC	4920
AGGGTCGTCA	GACACTTGGT	AATTGACCTC	ATATCCCTCC	GCCAAAAAAG	GATCTACAAT	4980
GCGATTTTGC	GAAGCCAAGC	GTTGATTGTA	GGCGAGAGAA	TGGTTCTGTT	GTCTTTGGTA	5040
CATTTTCAGT	GTCAATGGAT	TCACAAATGT	AGCATGACCT	TTCACTGTGC	CAAGAGACTG	5100
CAACACCATC	TGTCCAAAAC	AATAAATAGG	AATCAAAACG	GCTACCAACA	TCAACAAGTA	5160
TCCCAATAAG	GCTCGTAGTT	TAGTCTTGA	CATGACGCC	CTCCAATTGC	TTTTCTAGTC	5220
CTTTGACAA	CCGTGATTA	CGATACACGC	GATACAGCA	GAGAAGGATG	ACCGCCATCG	5280
CTCCTAGTAA	TAACCAACAC	CAGAAATGCC	CACGCTCTCT	CACGCTCGA	TTCCGCTCTG	5340
CAATTGTGTC	CGTATACGGA	ATCCGCTTCC	CACGTACCAA	CAGACGATGA	CTGTTAATCA	5400
TATACGGTGT	ACAAGTCAAC	AAGGTCGCAT	AATCTTCCCC	ATGTTGAATC	AMGACAGGT	5460
CAAGTCATT	CGGCTCCACC	GTCACTATCT	GATCCACTTG	GTAGGCCAAC	ACCTGATCTA	5520
AAACGTGAAG	ATAAAAGATA	TCCCCTTTTT	TCACTTTATC	CAMTTGACTG	AACAATTCTG	5580
CCGTTGGCAA	TCCTCTGTGA	GCAGTGATCA	CTGTATGGGT	ATTTTCACCT	CCAACAGGCA	5640
GCGAAGCCCC	TTCTAACAGC	CCTGCCCTTT	TCTGAAGAA	GTCTCACTC	GTTCGACAT	5700
ACATCGGAAT	TTCTTGATCA	ATCGCAGGAA	TTTCCACATA	GCCATCCGC	TCATGGACCT	5760
TTAGCATATT	GGCATATTCT	GAGACGCCCT	TCTTTTTCTC	TGTCTCTGTA	AAAGGATCAA	5820
GAATTTTACA	TGGTTTCAAG	GTCCGATTGA	AGGCTTGAGC	CAAGGCCCAA	CGTCCCTCAA	5880
GTTCCTGCCCT	ATCCATCTGG	GAAACCGTCT	CATCAAACTC	TTTAATTAAC	TCGTTTGACT	5940
CAATACGATA	ATAATAACGA	GACACCAATG	GATATATCGC	AACGGCGAAT	CCTACTAAGA	6000
AAATCAGAAG	AAGGATCAGC	GGATGTTTCT	TCTTTTTTGT	GCCTTTTTTT	CGTGAACGTC	6060
TACTGTTGTC	CATCTTCCAC	CTTCACTTCC	TTCTTTGCTG	CTTTCAGCGC	CTTCAAGGCC	6120
TTTTTCGGTT	GTTTTTTCTT	CTTGCCCAAG	CGTCGAATAA	TCCATAAAAG	AATCACAAATC	6180
AAACCAACTG	CCACATAAAA	CAGGTAGCGA	TAGAGATGAC	TGAGTTTGT	TGCTGCAATA	6240
AATTCCTTCT	CAACCTCTGC	TACGTACGCT	ATCCGATGCC	CCCGAACCAA	TAGACGATGG	6300
GTATTGATCA	TGTATGGCGT	ACAAGTCAGC	AAGGTCACAT	AATCATGACC	TGGTACAAATC	6360

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AATAAATCAT	CAAAGTTCGT	CGGCTCAATC	ACCTTTACTT	GATCCACTTG	ATAGGCCATC	6420
ACTTCCTTGA	TATTTGTGCAC	ATAAACTTA	TCCCAACTT	TAACTTTGGT	CAAATCCGTA	6480
AACATCTTAG	CTGTTGGCAA	ACCTGTATGT	GCCGTAATCA	CCGCATGGGT	CGAATTGCCT	6540
CCGATCCGCA	GAGAAATTCC	CTCTAGATGC	CCAGCCCCCTT	GCTGCAATAC	CTCTTCAGCA	6600
GTACCAGCAT	AAACCGGCAA	ATCCAGCTCA	ATAACGGGGA	TTTCCACATG	CCCCATCCGC	6660
TCATGGATTT	CTAACATACG	TGCATACTCT	GCTCGCCCTT	TTTTCTTCAT	TTCTTCGAC	6720
CAAGGATGCG	CACCTCACTAC	ATTATTCAAA	GAGTCATTGA	AGGCTTGTGC	CAATTCATT	6780
CGTTATCAA	TGTCAGCCTC	ATCCAAGTT	GCTTTTCTCT	TATCAAAGTC	AGCAATTTGT	6840
TGATTTGATT	CCAATCGATA	ATACAGCGA	GACACACGCG	GATACGCCAT	TACCGCCATT	6900
CCAATGAAAA	ATACCACTCC	TAATAOGAGA	TTATTTCTGT	TTTGCTTTTT	TGTTTTTACC	6960
ATTTTATCA	GCATCCCTTT	ATCTTCAAA	TTCAGGGTAT	C		7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10411 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT	AAGAACTTAC	CACCGCTCTC	TAGCGCCTTA	TCCGCATCAA	AGTTAAGGTT	60
GATATTTTTA	AAACTGTCCG	CAGCTTGTGA	TACGATGCTT	TGTTTAAGGT	CATTTAGGGT	120
TTTAGTGAAA	TCTGCATTGC	TGAGGATATC	ACTCTTTGAG	AGATTCAAAG	CAAAATTGAT	180
GATGATATTG	ATCTGGTTTC	CTGTTATGAC	CTGATCAAGT	TTGTAAATTT	TTAAGGTATC	240
TTCAACAATC	TTGCGGATAT	CTTCTTCTGT	CAGATTTCCT	TTACTTTCTT	TAGCTTTGGC	300
GAGTCCTGAC	TTGATATCAG	CATAGGGCAAC	GTTTAATTTA	TTAGCATCAT	AGCCTGAATT	360
GTCTTGTGTT	TGACGATTGA	TATCTGACAA	AGCTTTTAGC	TCTTCTTGAG	CCAATCTTT	420
ATTAGCTTGT	GGCACTTGG	CTCCATTAGC	CTCTAGCGAA	TAGTAAATCC	CTGCTAAAGC	480
ACTTTCTCCT	GTAACGTGAA	TAGGGGCTGC	TACAGTGATT	TTGGCATGTT	CCATACCCAG	540
CGTTACTGCT	CGTTTTCGGT	ACATATCCTG	AGTCACCTTA	GTGATATTTT	CTGGTGTTTC	600
AATCTTGACC	TCAAGTGCG	ATTTGTCAAC	TAGCTTTTGA	ATCTTGGCTG	ATGAATACAA	660
CTGTAACTA	GAGTCATTGG	CCACATTCAT	GATTTTAGAA	TAAACATCAG	GTGTCATGGT	720
CTTGAGTTCT	TTGTGATCTG	TTGAGGCATT	GTAGCCCACT	TTTTTAAGAG	TTTGATTTTT	780

TTGGTCTTCA	GATAGGGAGG	AACCTAGGAC	ATATTCAGGT	TGGACATAG	TTTCATCGAT	840
AACCTTTTGA	ACATCTGTGT	CTGCAATGGAC	GCTATTCATA	GCTGTACTG	CCCACAAGAT	900
CGCAGCGCTA	GTCAAGAAAG	GTTTCTTTCT	CATAGGGAAT	TTCTCTCTTT	ACTTCTTTAG	960
AGTAATATAT	CTATCTTAAA	GAAAACTTAT	AACAAAACAA	CCTGCTCTAG	CCAGATGTTG	1020
AAAAGAGAGT	GAAACATTTG	ATGATGTAAA	GOTTAAGTCG	TACCTGTCTA	GAATAATAAT	1080
AGTTCCTCTC	ATTTACATAG	AGTTCAGCAC	CGTGAATAAT	GGAAATCGGG	TGAATATAAC	1140
TATAAGTCTT	TCCAGTCCTA	TTACCAAGCA	AGGGGGCAAC	AGTCTCACGA	GAGTACTGTT	1200
TGGCTAGAGC	CAGGATATTT	TCCTTGCCAT	TTTGGGCGAT	AAAATCGATA	TAGGCAGGTC	1260
CAAAATATATA	GGCTTGAAAC	GCTGTCCAGA	TATCTACCCC	CTTCTCTGCG	GCCAGATAGA	1320
GATTGCCTGT	CAGAGTTTGA	ATGCCTTGCC	GAATGCTAGA	GGCATTAATCA	TTGATGTTGT	1380
TGGTGAACCC	ACTTGACAGC	TCACCTAGACT	GCATAACATC	GCCTTCTTTT	CCTTTTGTGT	1440
CAGTATAAAT	CATAGCAAGC	ACAAGCTCTT	CGTTTGCTGG	GGTGTCTTGT	TCACCTCAATA	1500
TTTCTCGCAC	CATGGGTTGA	TAGGTCAATG	CTTGTCTTGC	ATCTTGATGA	ACGCGTAAG	1560
CTTTATAGCC	AGCAAAAGAG	AAGACTGTCTA	GTACAAGCAC	TCTTCGAATT	CGTTTAAACA	1620
TTATTACTAT	TGGATATCCT	CGATATTTTT	GATTAAGATA	GAGTAGGTTT	CATTTTCGTT	1680
TTGGATAAAC	TCAACAGACT	CGGCGTCTTG	ATAGACGTTA	TTGGGAACGA	TGAGCTCAAT	1740
TCCATTGTAT	AAGGAGAGTT	TTTGGTTTTT	AAATTTCTTT	AATTTGCGAC	TGGCATCAAT	1800
TTCATCAAAAT	TGAACAGGTT	CTGGTACGGC	TTCTTTGACT	TGCTCAATAA	AGCTCAAAAG	1860
AGCCGTGAGA	TTGTTGTCAA	AAAGGTCAAT	AGCCAATTTT	TCAGGTGACA	ATTCAATTGCT	1920
TTCTCTTAGG	TTGTTGAAAA	TAGCTGATTT	GACCTTGGAT	TGAAATTGAA	AATCATCTGT	1980
GTTAAAGAGT	TTAGCAATTC	TCCTGGGCTGT	TTTTTCCAGT	TCCTTGATAG	ATTTTTTAGG	2040
AGAAATCTTA	GGAGCGACAG	CAAGAAGATT	ATCTGAAAAA	TAGTTCAAAA	AMTCCCGTT	2100
GTACTTATTT	GGTTTTTCAA	TCAGGTGATA	CTTGCTACTC	TGAAGATTGA	CCACCAAGGC	2160
CTCATCAGCT	CTGTTTCCAA	ATCCAGGCAG	GTTATTTCTGA	GTTAGCTTGA	TTGGATTATC	2220
AACCTCTCCT	CCGAGGTGGG	TCAAGGTCTC	CCGCAAGGCA	ATTCCCAAGA	AMCGAAATG	2280
TTCTACACCT	TCTTTAGAAA	ATTGCACAAA	AATCAAGTCA	TTGGTCTTGA	GATTTTCAGA	2340
AATGCTAAAC	TCCTCTTTCC	AGAGATTAGC	CAGCGTTACT	GATGTCTCCA	ACAAATCGTC	2400
TGTAATATGA	TTGAAGAAGG	GATTTTCTTC	TTGCAAAATC	CCAGTCTTGG	CTTCATCTGA	2460
ATACACATGT	TCAATTTTTT	TACGCAGGTA	TTCTTCGATT	TTTGGAGTAA	TATTGACAAA	2520

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CTTATCTGCT AAGAACAGTT CGGTATCATC CGGACTGAAC TGGTGAATAA TGGCTTTCTT	2580
AATATAAATG TCCATAAAG TTTTAGTCTCT GGTATAATGG GAAGGCATCT GTCAATTCTT	2640
TGACTGCACT TCTCACTTCT TCTAATACAG CCTCAATTTT TGAATCTCTA AGGGTTTTAA	2700
TGATGAGTTG AGCCACTTTG CGACTTTCTT CTTCAACAAA TCCACGTGCA GTAAATGGCTG	2760
CTGCTTCGGT ACGAATCCCA CTTGTCTTGA ATGGTGACAA GCTTTCTGTA GGGATTGAGT	2820
TTTATTAA GGTAAATATT ACTTCATCCA ACAAGTTTGG AGCAACTTTG CCGTTTTCTA	2880
CAACTTTAGT CACATCAACA AGGAAGAGAT GGTTTTCAGT TCCACCTGAA ATAATACGGA	2940
AATCAGGGTC TTGCAAGAAG ACATCTGCCA TAGCCTTGCT GTTCTTAATT ACATTGGCAG	3000
CATATTCCTT GAAGGCTGGA TCCAAAACCT CTTTGAAGGA AACTGCCTTA GCCGCCACAA	3060
CATGCTCTAA AGGACCGCCC TGAATACCTG GGAAATAGC TGAATTGATT TTTTAGCAA	3120
GTCTCTCGTC ATTGGTCAAA ATCAAAACCAC CAGGAGGTCC ACGAAGGGTT TTGTGGTGC	3180
TTGTGTGTTG GATATGAGCG TATGGAACTG GGCTTGGATG AAGGCCAGCC GCAACCAAGC	3240
CAGCGATATG GGCCATGTCC ACCATGAGCT TCGCACCGAC AGCATCTGCG ATTTCAACGA	3300
ATTTGAAAA ATCGATAATT TGAGAATAGC CTGAAGCACC AGCTACAATC AGTTTTGGTT	3360
TTACTTCTTG GGCTTGTTT AAGATAGCAT CAAAGTCTAA GAGTTCTGTT TTAGGATCAA	3420
CACATATAAG AACAAAGTTG TAGGTTTGAC CAGAGAAGCT AACAGGAGCC CCATGAGTCA	3480
AATGACCACC TGATGOCAAA TCCATTCCCA TAACCGTATC ACCTGGCTCA ATCAAGGACA	3540
TGTAAGCCGC ACAGTTAGCT TGGCTTCTTG AATGTGGTTG AACATTGGCA AATTAGCAC	3600
CGAAAAATTC TTTTGGCGGT TCAATAGCAA GAGTCTCTAC AACGTCTACT ACATCAGTTT	3660
CACCATATA ACGGCGTCTT GGGTAACCTT CGGCATATTT ATTTGTCAAG ATAGACCTCT	3720
GAGCTGCCAT AACAGCCTTG GAAACTACGT TTTCCGAAGC AATTAACTCG ATATTATTTT	3780
GTTCGGCTTC TTTCTCTTG GCAATAGCAT TCCAGAGATC AGCATCATAT GCTTTAAAAAT	3840
CATCTTTGTC AAAAATCATA GGTCTTCTCC TTTATTGTGT GACTAGTCCA TTAGTTTGAT	3900
TTTACAATAA GAAAAACAAA CTAAACAGATG CGAATAAACC GTTCTGCTAT TTTATCACAA	3960
GTATAGCCAA CTTTTCTATA AAATGCATGA GCACCCAGAC GATGATTGGC AGAATTTAAG	4020
CGGATAAACCC CATAACCACA TCTTTTGTCT TCTTCTTCCA ACCCTGTGAT TAACTTTTAA	4080
CCAATACCTT GACCTTGCGC TTGAGGTGAA ACTGCTAAG CTAAAGATAT AAATCTGCT	4140
TTGGAATAGA GTGATTCTGA AACTTCAGCG TGGACATATC CAAGTAAGAC ATGATTAGCT	4200
GCATCTCTAT AGCCAAAGTAG GAAATGATGG GAATCTGAG ACAGTCTAGC TAGTTGGCTA	4260
GCGCTTCTCT CTGGACTAAA AGTATAACCC AAAGCCTCTT GGTGATGTC ACATATAGCT	4320

TTCACATCAG	TTTCTCTTAA	ATCTCTTAGC	ATCTCATTC	TCCTCAAAAG	AAATCTTTGG	4380
CAACCGAGCA	AGAATATCTT	CTCGCTTAAT	GGCCCTTGA	CGTAAGATTT	TCACCTTGTC	4440
TCCCAGCAA	TTCAAAATAG	TTGAATCTTG	TCCAGTTAGA	AAAGCATCGT	CTTCCAGACC	4500
CAGAACCTCT	TGGTCAAAAT	CCTCTAGAAT	TTGAATTAAG	GTCATCCAC	TCGCCTGACC	4560
TGAGATATTG	GCAGACGGCC	CAATCAAGGG	ACCTGTCTCT	CGAATCAAA	CAAGGGTAAT	4620
GGGATGACTA	GGCATCCGAA	ATCCAACAGT	TGCAAGGCCA	GAATTGACCC	AATAGGGAAC	4680
TCGGTCAITA	GCTTCGAGAA	TAAATGGTCAA	GGGACCTGGT	AAAAAGATCT	CTACAAGTTT	4740
TTGAAGATAA	GTTGGCTGAT	TCTTTGAAAA	GTACAAGATG	TCCTCTAAAG	AGGCAACATT	4800
GAGATTGAGC	GCCTTGCTCT	TACGTCGACG	TTTAAGCTGG	TAAACATGGT	CAACTGCTTT	4860
TTCTCTAGC	GCCTTAGCAA	AGAGACCGTA	AACCTGTCTCT	GTAGGCAAAA	CGACAGCTCC	4920
ACCATTTTCC	AATCTTTGTC	TAACTCTGTC	CATCATCAAC	GACAACCATC	CTATCTTGAC	4980
CAAAATGGTC	CTTGAGTGT	CGTACTCGCT	TTTCAGGAAG	ATGTTTCCCTA	AAAAGTTCAG	5040
GAAACATTTG	ACCTTGCTTG	TATCCAATTT	CAAGGTAAAT	CTTACCACCA	TCCTTGAGAT	5100
AGTCTTTTGC	ATCTTCGSCA	ATTCTACGGT	AAATAGCTAG	GCCATCCTCA	TCTGCAAGA	5160
GAGCTAGATG	AGGCTCCGAA	TACAAGACAT	TCAAGCCTAC	CTCTGACTCA	TCTTCACGAG	5220
AGATATAGGG	TGGATTGGAA	ACAATTATAT	CATAITTTTC	AGAAATTTCT	GTAAAAACAGT	5280
CAGATTTTTT	TAAAAATATT	TGAAGATTTT	GATTTTTTAGC	ATTTTTCGCTA	GCTACATCTA	5340
AAGCATCTTG	GGAAATATCT	GCTGCCGTCA	CTGACCAATC	TGGTCTGTTT	TTTGCTAGAG	5400
CGAGAGCAAT	AGCTCCACTA	CCTGTTCCGA	TATCTAGGAC	CATAAGATTT	TTCACAGGAT	5460
TTTCAGCCAG	GATAAGCTCC	ACCAACTCCT	CTGTTTCTGG	ACGAGGAATC	AAAACCGTT	5520
CATCCACCTT	TAAATGCATT	CCATAAAAT	CTGCCCTGCC	AATGATGTAC	TGAGCTGGCT	5580
TGTGAGCTGC	TAGTTGCTGG	TAAATATCTT	CTACAAATG	TTTTTCTTCC	TCTGTTGTCA	5640
CCTCTGCTG	GAGGGCAAAA	ATAAGTCTG	TAAAGATAG	ATTTTTCAGA	CTACGATAGA	5700
CAAAGAGAG	GCTTTCCGCT	TCCTCTCCTT	GTCTTATCAA	GCTCTTCTCA	AAATTTGAAA	5760
ATAATTGAGC	TAAATTCATT	ATTGTTTAA	TTCTCTAGT	TTTTGTGTTT	GGTCATAAAG	5820
CACCAAGGCA	TCCACAACCT	CGTCCAATT	ACCAGACAAA	ATCGTATCTA	GTTTTGGAG	5880
GCTCAAGCCG	ATACGGTGGT	CTGTGACACG	GTTTTGTGGG	AAGTTATAAG	TTCGGATCCG	5940
TTCTGAACGG	TCACCAAGTAC	CGATTGTGCA	CTTACGCTCA	CGCTCCTGCT	CATCTTGAGC	6000
AATCTGAGCA	AAGTGGTCAG	CAACACGGGC	ACGGATGATT	TTCAATGGCT	TCTCACGGTT	6060

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CTTCTGCTGG GTACGTTCTT CCTGCATCTC AACCTTGATA TTGGTTGGCA AGTGAACGAT	6120
ACGAACGGCA GTCCGAACCT TATTGACGTT CTGTCACCA GCACCAGAGG CTTGATAGAT	6180
GTCGACACGA AGGCTCTTTG GATCAATGTC GTATTCAACC TCTTCAACTT CTGGCATAAC	6240
AAGAAGCTGTC GCTGTCGAG TATGAACAG GCCTTGGCTT TCTGTACAG GAACACGTTG	6300
CACACGGTGG GCACCTGATT CATACTTAAG CTTAGAGTAT ACAGACTGAC CTGAACCAAT	6360
AGCAACCACT TCTTAAAC CACCGACACC ATTCATAGAG GCTTCCATGA CTCAAAAGCG	6420
CCAACCTTGG GCTTCCGCTT ACTTTTGGTA CATAGTTAGC AAATCTCCAG CGAAAAGTGC	6480
CGCTTCGTCT CCAACAGCTG CTCCACGGAT TTCAAAGATG ATATTTCTGT CATCGTTTGG	6540
ATCCTTTGGA AGGAGCAAAA TTTTCAGTTT TCTTTCATAT TCTTCTTTT CAGCCTTGGC	6600
ATCTTTGAGT TCTTCTTGG CCAATCTCTC CAAGTCGCA TCTCCGCTG ATTCCTTAAT	6660
CATCTCTTGC GCATCGACGA TATTTTGAAG GACTTGTTA TACTCACGGT AGGCTATTAC	6720
GGTGTACAGA TTGGAAGCTT CTCTTTTGA AGCTCCATA AAACGCTTGG TGTCTGAAC	6780
GACATCAGG TCACCTAGCA ATTCTCCTAA TCTTTCATAA CGGTCTTCTA CAACTGTGTAG	6840
TTGATCATAG ATGTTCAATT TTCTCCTTA TTCTCAATT GTTAAATCAT AGATTGCTAC	6900
TACTTCATTC TCGGATATTT CCCAGTTTC TTAAATCCA TAACTGAGGT AACAAATCT	6960
TGCTGTTCA TTTTCTGGT CATATGACAA CCAAGTTTA TTGCTTAAAC CTGCTGGCGC	7020
TGTTGGAACA TAGTCTAGTA CTTTATCCAT AATTGGTTTA AAATATCCTT GATTTTGAAA	7080
ATTCTTATCA ATCATAAAC GAATATGTA ATATTTTCCA CTACTAATTC CGATCTTTT	7140
ATCATTAAGT ATCATCAAA AACCTATAAT TGATCATTA TCATAAACTG CCAATGGAGC	7200
TACAAAACT CCATTTTATG TGTAGACGTA TGCTTCAGCT AAACTAATG CGTTGGTTGC	7260
AATGAATTTG TTTTGATATT CCTTGACATC CAAATTTAAA ACATCAAAAT AATTTTCCAT	7320
TGTAACATCT CTTAGTTCAA TTGTCATAGT TTTGCTCCTT GTTAGAGGTT ATCATTGGCG	7380
CAAAATAATG TTTACGGCAA ACTGAGATAT AGGTTTCGTT ACCACCAATC TGGATCTGT	7440
CTCCATCGTA AACGGGCACT CCATCCTGTG TCGCAACAC CATGTCCGCC TTTTCTTGC	7500
AATACYGACA GATGGTCTTG ATTTCTGCAA TCTTGTCTGC TAAAGCAAG AGATATTTGG	7560
AACCTTCGAA CAATTCATTG CGAAAGTCAT TTTTCAAGCC AAAAGCCATG ACGGGTATGT	7620
CTAACTGTC CACAACACGA GCTAGTCTGT AAACATGGTG GCCTTTGAGA AACTGGGCTT	7680
CATCGACCAA AACACAGTAA GGTTTTCTTG GTAGGTCTCG GATATAGCCA AAGATATCCG	7740
TTGTTTCTCT AATGCAAGG GCAGGGCGTT TCATGCCAAT TCGACTCGAC ACATAGCCAA	7800
CGCGTTCAG CGTATOCAGA GCCGAGGTCA TAATCACAAC ACTTTTCTCT TGCTCCTCGT	7860

AGTTATAGGC CACTTTGAGA ATCTCAATCG TTTTACCAGA GTTCATGGTC CCATAACGAT	7920
AGTACAACCTG TGCCATGTTT CTTCCTTCAC GTCCATTTCT AAATTTTTCG TACATCTTAG	7980
TATATCATAA TTTTCTTAAG CTTTAAACGG CAAAATGTGG TAAATAGAA GAAATCAAAA	8040
ACTAGTGGAG GAAGCATTTA TGCCATTTGT ACGCATCGAT TTATTTGAAG GACGCACGCT	8100
CGAGCAAAAG AAAGCTCTGT CTAAGGAAGT AACGGAAGCA GTTGTCCGCA ACACGTGAGC	8160
CCCTCAATCT GCTGTCCATG TCATCATCAA CGACATGCCA GAAGGAACCT ACTTCCACCA	8220
AGGGGAAATG CGTACTAAAT AAGCTAGCTT AAGCAGAAAT GCTTAGGCTT TTTCAATCTC	8280
CAAGTAGCAT TCATTGAAGA AATATCCTAA ATTTGTTCAC ATTTGAAAAG AAACCTGGAG	8340
AATTTCCAAG AAAAGAGCTA TTAATTAAG GAAACATTAT GATTACACGT GAATTTGATA	8400
CCATCGCTGC TATCTCTACT CCACTAGGTG AAGGGGCTAT TGGTATTGTC CGCCTGAGCG	8460
GAACAGACAG TTTTGTGATT GCGCAAAAGA TTTTAAAGG AAAAGACTTG AACAGGTTG	8520
CCAGCCACAC TCTCAACTAC GGTCACTTA TTGATCCTCT GACTGGTAAA GTCATGGAGC	8580
AGGTTATGTT TGGGGCTATG AAGTCTCCAA AGACCTTCAC TCCTGAGGAT ATTATCGAGA	8640
TTAAACCCCA CGGTGGGATT GCGGTGACCA ATGAAATTTCT CCAGCTAGCT ATTCTGGAAG	8700
GGGCTCGGTT GGCAGAACCT GGTGAATTTA CCAAACGTGC TTTTAAAC GGTCCGCTAG	8760
ACTTGACACA GGCAGAGGCT GTGATGGATA TCATCCGTGC CAAGACTGAC AAGGCCATGA	8820
ACATTGCGGT CAACAATAA GACGGCTCCC TTTCTGACCT CATTAACAAT ACCCGTCAAG	8880
AAATCCTCAA TACACTTGCC CAAGTTGAGG TCAATATCGA CTATCTGAG TATGACGATG	8940
TTGAGGAAGC CACTACTGCT GTTGTCCGAG AGAAGACAAT GGAATTGAG CAATTACTAA	9000
CCAACTCCTC TAGGACAGCA CGTCGTGGTA AAATCCTTCG TGAAGGAATT TCAACGGCTA	9060
TCATTGGAGC TCCCAACGTT GGGAAATCAA GCCTTCTCAA CAACCTCTTG CGTAGGAGCA	9120
AGGCTATCGT AACAGATATC GCTGGGACAA CACGAGATGT CATCGAAGAG TAAGTCAACA	9180
TCATATGTTT ACCTCTCAAA TTGATTGATA CAGCCGGTAT TCCTGAAAAG ATGATATATG	9240
TTGAACAAAT TGGAGTTGAG CGTTGAAAAA AAGCTCTTAA GGAAGCTGAC CTAGTTCTGC	9300
TAGTACTAAA CGTAGTGAAC CCACTAACCG CCAAGATCG CCAACTCCTA GAAATCAGTC	9360
AGGAGACTAA TCGCATTTAT CTCTTAACA AACTGACCT GCTGAAAAG ATTGAAACTT	9420
CGGAATCACC TGAAGATGTC ATCCGCATTT CAGTCTTTAA AAATCAAAAC ATCGATAAAA	9480
TCGAAGAGAG AATCAACAAC CTCTTCTTTG AAATGCTGAG TTTGGTTGAG CAAGATGCTA	9540
CCTACTGTGC AAACGCCCGT CACATTTCTT TGATTGAGAA GCGCGTTGAA AGCCTACAAG	9600

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CTGTTAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCCTCAAGTT GACTTGACCC	9660
GTACTTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCCTG TTAGGAAAAAT AAGAAAAATC CATGATCCTT CATTCGTCTCA	9780
TGGATTTTGG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATATGA AAGCGACAA AACAACTCAT	9900
TAGAAAGAA CATATGGAAC AATTACATT TATCACAAAA TTACTAGACA TTAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATTA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGAACTACGAC GCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAAAATCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCCTCCTTA	10140
GAAAGCGTCG ATTCAAATGC TATCACTGTT CAAAAATGAT GGTGCTGAA ACTTCTATCG	10200
TCAAGAGAA TCACCAAAAT CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTCA ACTGTTATTC	10320
GTAGCTCAA TGACTTTCAC TTTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGTCCT	10380
GGGATGAGTA TGCTTTTACA AAAGGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTTGGGTT CTGAAAITA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTT	60
GGAGATTTAA GTTTAAATG AAGAAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGCTATTC GAGGATGGAT AAATATATGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGCG TACTGCCTTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAAC CAGTCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGGATTA TTACCTTGAA CGACATGGT TAAAAAGTAG TTGAACCGCC GTATGCCAAA	480
CGGACGCTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTACTCGATT AACTCCCCTG	540
AAATTATATT TAATTATGCA AATTTCACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

ACTTTTCAGA TATTTTTPTG ACTATCTAAA TCTATCATTA GAAAAGCTTA GAGGCCAAA 660
 GGATTTGAGC GTTTTTCTGA TTTTAAAGAC TTTTCCAAGT CTCTTTTTTG ATTGAAGATG 720
 TAATTATTCT ACTAACTAAC TAACCTCTTA GTACTAGCCA ACAACGATAA TCATAATTCC 780
 TCTTAAATTT AGGAATAATA AAGGCAATAG TTTTGTCTTT TTCACTTAAA AACCCTCACT 840
 TTTGTTTCTT GCTATTTTAT GCTAAAAATAT TAAAAATCAA ATTTAATTCC AAGTTTGTGA 900
 ACTAAAGGGG GAGCGCTACA TGCTAATATC ATTTGTCAAG TTGTTAGTCT CTCAATTATT 960
 TGCAAAATTT GCAGATATTT TCTTTAGAGT AACAACTATT GCTAACATAT ACATTATTTC 1020
 AAAATCAGTA ATTGCCACAT CACTAGTCC TATCTTAATA GGAATATCTT CTTTTGTGTC 1080
 GAGTCTTTTA GTTCCGTGG TTAATAAAG GTTAGGCTA AATAGGTTT TATCTTTATC 1140
 TCAATTGGGA AAGACTATAT TATTGGOGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC 1200
 CGTAGCGCCT TTGGTGACCT ATCTATTTGT TGTGCAATTT TCCATACTAG ATGTTTGTG 1260
 AGCACCCGTT TCCTATGCTA TTGTGCCAGC CTATGCGACC GATTGGGTA AGGCTAATTC 1320
 AGCCTTATCA ATGACTGGTG AAGCTGTTC AATTGATAGT TGGGGATTAG GTGGACTCTT 1380
 GTTTGCAACA ATTGGTCTGT TACCTACCAC GTGTATCAAT TTAGTCTTGT ATATCATTTT 1440
 TAGCTTTCTG ATGTTATTTT TTCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTPA 1500
 TCTTGAATTT TTGCTCAAGG GTTGGAAAGT AGTTGCTAGA AATCTAGAT TAAGACTTTT 1560
 TGTATCAGCA AATTTATTGG AAMTTTATTC AATACGATT TGGTTTCTT CCATTATACT 1620
 TGTTTTGTGA ACGAGTTAT TAAATAAAAC GAAAGTTAC TGGGGATATT CTAAATACGC 1680
 ATACTCTATT GTATATATAA TTAGTGGCTT AATTGCTTTT AGGCTATCTG AAAAGTTCTT 1740
 TGCTGCTAAA TGGGAACCCC AATTATTAC CCACAACTTA AAAACCATCC AGAATCCTTG 1800
 CCTTAGCTTA GATCCTGGAT GGTTTCTTTT TTCACCCAT GGGTGTTTTT TACTAGACAA 1860
 AAAAGAGTTT CCCCTTATG GTATAAGTGT AGAAAAAAC ACAAAAAGAA AGGAACTCA 1920
 CATGAACAGT TTACCAAAAT ATCACTTCCA AAACAACTCT TTTTACCAAC TATCTTTGCA 1980
 TGGAGTGCAT TTAACCCAGT ATGGTGTCTT TATCTTTTTT CAGGAACCTT TTTCCAGTT 2040
 GAAACTAAAA GAGCGATTT CTAAATATT AGTAACGAAT GACCAACGCC GCTACTGTG 2100
 TTATCTGGAT TCAGATATCC TTGTCCAGTT CCTCTTTCAA CTGTTAAGAG GTTATGGAAC 2160
 GGACTATGCT TGTAAAGAAAT TGTCAGCTGA TGCCACTTTT CAAAATTTGT TGAAGGAGG 2220
 GCAGCTTGCT TCACAGCCAA CCTTATCCCG TTTTCTTTCC AGAATGACG AGGAAACAGT 2280
 CCATAGTTTG CGATGCTCA ACCTTGAAAT GGTGAAATTC TTTTACAGT TTCACCACT 2340

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AAACCAACTC ATGTAGATA ACGATTCTAC CCATTTCACA ACTTATGGCA AGC 2393

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4762 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTGTATCTT TTTAGTCTC TTTCATCCA AACCTTTAA ACTATAGTC ATTTGGTTTC	60
CTGCAAGTCT TGTGTAATT TTAGGTTTGA TTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTGATGCTC GTCTCCCTG TTTTCTTACT TTATTTGGTA ACCAATATTA	180
AGAGTCACCA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTT TGGGTTTGT TATCTTTGT	300
CTGTTCCCTT TTTGATGAAG TTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GGTAAAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATCGATGAT	420
ACTGCGACTC TTATCGTAA GAGTGAGCGC TTGTCCCATC GCGGATTTTG TCCCCGTTGC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGACTTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGTTAAAT GATAAGGTGG TAGTCTGCTC TGAAGTGAA ACACCTCTTA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAAAATCA ATATCTTTTG TATTTTAAA AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTGGCCAACT CTCCTGCTCG AGAAACGAGA	840
TGGGAGAGCT GTTGTATTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTTATG GATGTGACAC CCTGGTTGA AAAATGCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTCCACA GGAATTAAG ATTTACGAAA TTCAAJAATAT	1020
CGTAGAACAT GAATCTCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TGCGACACAG AGGGATTTTG AGCGCTCAA AGCGACGGAT ATCAACTTTA GTATTCTATA	1140
ACTTCTCAAC AAGAGCCAGA CAGTTGTCAA TGAAAAAGCT AATAAGACA GTGATGTCTT	1200
TAACACTCAG CGTGAATTGA CAGCAGGGAT TGTGGGAAA TCAATCGGAC TGCAAATGCT	1260
TCCTAAGCAC GTAGCCAAATG CCCACCAAAA GGGGATATC CACTATCACG ATTTGGACTA	1320
CAGTCCCTAT ACCCCTATGA CCAACTGCTG TTTGATTGAT TTAAAGGTA TGTGGAAAA	1380

TGTTTTAAG ATTGAAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCACAGC	1440
ACAGATTTCT CAATCATTCG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAATTTTGG CGCCTTATGC AGAGAAGAAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAGAGG TGGGTATTGC CTGAAAACA GGAAGATTAC GCTTGAAGA AAGCGAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACITCAAA	1680
TGGACAAACA CCTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACAGGA	1740
AATTCAAAAA GCTATTTTAA ACATTGCGAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCCT AAACCTATCT TTACGCTTAA AAGAGGCTC AACTTAGAGG AAGGAATCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTGTCTTAT GATAAGATTG TTGATTGAC AGGTTCTTTC AAGGTGCTTA TGGGCTGCCG	1980
TTCTTTCCCT CAAGGGTGA AGGATGAAA TGGTGTAGAA GTCAATTGAG GTCCGATGAA	2040
TCTGGGTGTT GTGACGGTAA ATCTGCCCTG TATTGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTCTCGG GAAATCTTCA ACGAGCGAAT GAATATGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTTTGCCAT CGTCTAGGTA AAGAAAGAAAG TGTTGACCAG CTCCTTAAAG ATCGTCGTGC	2280
GACCGTTTGG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTTCT TTGGTAAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTACAG ATATGAAAG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTT TCTATCTACT CAACCCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCTACTC GATGTTGCTA AAATCCAAC	2580
ACCGTTTGAA AAATGGACT TTGAGAAAGT CTATCCGGAA GCAGCTGCCT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAACTG	2820
TGGCAATAGC GACCCTAAAA CAGTAGATGT GGTGAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGGC GTGTCAAACA	2940
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ATGGGAAAA ATCAACTAGA CGATAAGGGG CGGCACAAG TGACCCGTTA TCACGAGAAA	3060
CATCTFAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTAA	3120

718

AACAAGAACA	AGAAAAATA	AAAGTGAGAG	CCAGCTCTCG	CTTTCTCAT	AGTGGAGGT	3180
AAGGATGGAA	TTACGACGAC	CAAGATTAGC	GGATAAGAAA	GCTGTTTTAG	ATATCATATAC	3240
AGAGTTTGAA	AAATTTTCAGT	CGCCTCAGCA	CGCGGTTTC	TGGGATACAG	AGAACTTTGT	3300
GTATGAMGAC	TGGTTAGAAA	GCAATCAGGA	ACAGGAAATG	GCGATTAATC	TGCCTGAAGG	3360
ATGGGTTTCT	GCAATTCAGT	TAGTGGCTTT	TTCTGAGAAA	GCTCAAGCAG	TTGGATTCTT	3420
TAACTCCGG	TTGGCCTCA	GTAACCTTCT	ACTAGAGAAA	GCTGGCCACA	TTGGCTACTC	3480
CATTCCTCCA	TCTGAAAGAG	GCAAGGTTA	TGCAAAAGAG	ACTCTCCGTC	AGGGCTTGCA	3540
AGTTGCTAAG	GAAGAACA	TCAAGAAGC	TCTGGTGACC	TGTAGTGTGA	ATAATCCTGC	3600
TAGCAGAGCA	GTCAATTCTAG	CAATGGTGG	AATATTTGAG	GATGCTCGCA	ATGGAGTCGA	3660
GCGTTATTGG	ATAGAGGTAG	CGAATGAATA	ATCCAAAACC	ACAAGAAATG	AAAAGCGAGG	3720
AACCTTAGTCA	AGGTCGTATC	ATTGACTACA	AGGCCCTTAA	CTTTGTGGAC	GGCGAAGGCG	3780
TCGCGAACTC	TCTCTATGTA	TCAGGCTGTA	TGTTTCACTG	CGAGGGATGT	TATAATGTTG	3840
GAGCTTGTC	TTTTAATGCT	GGCATTCCCT	ATACAGCAGA	ATTAGAAGAG	CAGATTATGG	3900
CAGACCTTGC	CCAACCCFAT	GTTCAGGCT	TGACTTTGCT	GGGAGGGGAG	CCTTTTCTCA	3960
ATACTGGGAT	TCTCTTGCCA	CTTGTTAAGC	GGATTCGGAA	GGAAATTGCCA	GACAAGGACA	4020
TCTGGTCTGC	GACCGGTAC	ACTTGGGAAG	AAATGATGTT	GGAAACTCCA	GATAAACTGG	4080
AATCTTGTC	ACTGATTGAC	ATTCTTGTCG	ATGGAAGATA	TGATCGAACT	AAGAGAAATC	4140
TTATGCTCCA	GTTTCGAGGT	TCATCTAACC	AACGAATTAT	CGATGTGCAA	AAATCGCTCA	4200
AAAGTGGCCA	AGTAGTGATT	TGGGACAGC	TCAATGACGG	AAAAGAAAGC	TATGAACAGG	4260
TGAAGAGAGA	ATGAAGMAA	AGGACTTAGT	AGACCAACTA	GTCTCAGAGA	TCGAGACGGG	4320
GAAGTCAGG	ACACTGGGAA	TATACGGTCA	TGGAGCTTCA	GGTAAATCAA	CCTTTGCACA	4380
GGAATTGTAC	CAAGCTTTAG	ATTCTACTAC	AGTAAATTTG	CTAGAGACAG	ATCCTTATAT	4440
CACCTCAGGA	CGCCATCTGG	TAGTACCCAA	GGACGCGCG	AATCAAAAGG	TGACAGCCAG	4500
TCTGCCAGTG	GCGCATGAAC	TGGAGAGTTT	GCAGAGAGAT	ATCCTTGCTT	GCAGGCGGGT	4560
ATGGATGTCT	TGACAAATGA	AGAACCTTGG	AAGGCTAGTG	AGGCTTGTC	TGGAGCCAAA	4620
CCAATTGGA	TTGTGGAAGG	GATGTCTGTT	GGCTTCTAC	CCAAGGAATC	CTTTGAAAAA	4680
ACCATCTGTT	TCTACCGGA	TGAAGAGACC	GAATTAAGC	GACGCTTGC	TAGAGATACG	4740
ACTGTGAGAA	ATCGCGATGC	GG				4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

719

(A) LENGTH: 3832 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID No: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTGTGTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTAT TAAAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGGTTT	240
TACCGAGTGC CTTGCTCTTG CATTTTAAAG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGCCAATT TTCTATTG CAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTCCG ATGTCAACCA GTCCATTCTT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCTTTGGAA CGTTTGGATG ACCTGTTTGG AGCAGTTTCA TCAAGTTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGGA AACCTTCCAG CAGGAGTTGG	600
GACGATTTGT GACGCTTTT GAGATTGAGG ATTTGACCAA GACACTAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAA GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAACT	720
GGAAATACAT TCAGGCGATT TTGAGAAACT GGCGCCATGA AGGAATCAAG AGTGTGCTC	780
AAATTGAGGC CAAGAGGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGTATCTG	840
CAGATTTTCA AATGCCATG GATCTCTGGA AGGATTAAAT CATGCAAGTA GCCTTGAAAT	900
CCGAGTAAGA TTGCAAGCT GTGTATAATT GTGATAGANT AATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAAACCTCC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTGTA CAATGTTTCT TGCTGTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAATGTC AGGTGCTTTC	1200
ACTGTTGAAA CTAGCCACA AGTTTGTGAA GAAATCGGTA CTGACTACGT TGTATTCGGT	1260
CACCTCAGAA GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTFTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAACCTTAC	1380
GAAGCTGGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

720

GGTAAATCAG	CTTCACAAGA	CGATGCACAA	AAATGTGTGA	AAGTGTGTCG	TGACGTGTGA	1560
GCTGCTGACT	TTGGTCAAGA	AGTCGCAGAC	AAAGTTCGTG	TTCAATACGG	TGGTCTGTGT	1620
AAACCTGAAA	ATGTTGCTTC	ATACATGGCT	TGCCCAGACG	TTGACGGTGC	CCTTGTAGGT	1680
GCTGCGTCAC	TTGAAGCTGA	AAGCTTCTTG	GCTTTGCTTG	ACTTTGTAAA	ATAATCAGTA	1740
AGTACGAAAA	GCTAGGTGGA	ACAGCATTCA	GATGCTGTGT	ACATTTTTTA	TAGGAGAGAA	1800
AGATTGAAAA	CAAAAATTGG	ATTAGCAAAGT	ATCTGTTTAC	TAGGCTTGGC	AACTAGTCAAT	1860
GTGCTGCAAA	ATGAAACTGA	AGTAGCAAAA	ACTTCGCAGG	ATACAACGAC	AGCTTCAAGT	1920
AGTTTCAAGC	AAAATCAGTC	TTCTAATAAA	ACSCAAACGA	CGCAGAAGT	ACGACTAAT	1980
GCTGCTGCCC	ACTGGGATGG	GGATTATTAT	GTAAAGGATG	ATGGTCTTAA	AGCTCAAAGT	2040
GAATGGATT	TTGACAACTA	CTATAAGGCT	TGGTTTTATA	TTAATTCAGA	TGGTGGTTAC	2100
TGCGAGAAAT	AATGGCATGG	AAATTACTAC	CTGAAATCAG	GTGGATATAT	GGCCCAAAAC	2160
GCTGGGATCT	ATGACAGTAA	TTACAAGAGT	TGTTTTTATC	TCAAGTCAGA	TGGGGCTTAT	2220
GCTCATCAAG	AATGGCAATT	GATTGGAAT	AAGTGGTACT	ACTTCAAGAA	GTGGGGTTAC	2280
ATGGCTAJAA	GCCAAATGCA	AGGAAGTTAT	TTCTTGANTG	GTCAAGGAGC	TATGATGCAA	2340
AATGAATGGC	TCTATGATCC	AGCCTATTCT	GCTTATTTTT	ATCTAAJAATC	CGATGGAACT	2400
TATGCTAACC	AAGATGGGCA	AAAAGTGGGC	GGCAAATGGT	ACTATTTCAA	GAAGTGGGGC	2460
TATATGCTCT	GGAAATGAGT	GCAAGGCAAC	TACTATTTGA	CTGGAAATGG	TGCCATGGGC	2520
ACTGACGAAG	TGATTATGGA	TGCTACTCGC	TATATCTTTG	CGGCTCTCGG	TGAGCTCAAA	2580
GAAAAAAAAG	ATTTGAATGT	CGGCTGGGTT	CACAGAGATG	GTAAAGCGCTA	TTTCTTTAAT	2640
AATAGAGAAG	AACAAGTGGG	AACCGAACAT	GCTAAGAAAG	TCATTGATAT	TAGTGAGCAC	2700
AATGCTCGTA	TCAATGATTG	GAAAAAGGTT	ATTGATGAGA	ACGAAGTGGG	TGGTGTCAAT	2760
GTTCTGCTAG	GTTATAGCGG	TAAAGAAGAC	AAGGAATTGG	CGCATTAACAT	TAAGGAGTTA	2820
AACCGCTCTGG	GAATTCTCTTA	TGGTGTCTAT	CTCTATACCT	ATGCTGAJAAA	TGAGACCCAT	2880
GCTGAGAGTG	ACGCTAAACA	GACCATTGAA	CTTATAAAGA	AATACAATAT	GAACCTGTCT	2940
TACCCTATCT	ATTATGATGT	TGAGAATTGG	GAATATGTAA	ATAAGAGCAA	GAGAGCTCCA	3000
AGTATACAG	GCACTTGGGT	TAAANTCATC	AACAAGTACA	TGGACACGAT	GAGCAGGGCG	3060
GGTATCAAA	ATGTGTATGT	CTATAGCTAT	CGTAGTTTAT	TACAGACGCG	TTTAAJACAC	3120
CCAGATATTT	TAAJACATGT	AAACTGGGTA	GCGCCCTATA	CGAATGCTTT	AGAATGGGAA	3180
AACCTCATTT	ATTCAAGAAA	AAAAGGTTGG	CAATATACCT	CTTCTGAATA	CATGAAGGGA	3240
ATCCAAGGGC	GGTAGATGT	CAGCGTTTGG	TATTAAGCCA	TGATTTGAAA	GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTC TTTGTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGOTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTCAATCT	3480
ATTATAGTAT TGGGGAATT CTTCAAACCA CATCAGCTTG GTCACTTCTA CCTCGACCT	3540
CAAAACCTGT GCTTTGTCA AGCTGGGTTT AGTTTCTAG TTTGCTGATG GATTTCATTT	3600
GACTATAAGC ATCCAAACCT CTTTTCGCT TCTAAGAAT TCTTAAATTA TCAATCTATT	3660
GCACTTTTC TCATATAAAT TCTTTGCTT GCTATTGGTT TTCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAGAAGTG GTTACAAAA ATAATGAATG AGGTAAAGAA AATGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACT TCATTGACAA AAGCAGCCCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10690 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAATC CTCATGAACC TGGCGCCAAT AGACAAGTGT CTTGTTTCCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTGGA	120
CAATGCAGAC AGCCTGATTT TGACTATCTA AATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCTCT TCTAGCACA TAGAGTCAAT AGGCTGATGC TGTTCCTGTC TTTTCTCTCT	240
TAAACACCAA ATCCGCTAAA AGGTCTGTTT CAACCTCCAA AGCCCAAGCA TCGATTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGATTT TAFTCCACAT TCTTCGCGT ATCATGGGTG	360
CTCCTTTGTA ATTTTIACT TTCTTCTTTT ATGATTTTAA GATGATCTGG ATGCTCAATC	420
TCTAAATCAA AATCTCTGG AATAGAACTG TACTGGATAA TGCACTTGAT ACCCAACTGA	480
TTTCTTTTTT GTATGAAGA AGTATTGAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTC	540
TTTCTTGCTT TATCTGTCAT ATCTCTTAGC ATATCTAACA TTAATGGACT TTCCATATCA	600
TGCCATATGAC TGTTCCTCAT AGTCGCAAAA ACAAGGAAG TCAATTCATT CATTCCAACT	660
ACAATCTTGT AAATGCCCGT TTCCAGTATA CTAGATAAGT CAAATACGC TGACGGTAAT	720
TCATATCATG TTCCGACTTT CCGCAAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTTAATTTGT CGGCATCATT GACAAAAAGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTCTCG TAACGACATG TGCTTCAGCC TGAATTCAT CCAACACGC CAGTAAACGC	900
CTAGTTCCTC TATAGCCAAA CAAGGGATGC CTTTCGTCAA AAAACTCTTTC AGTCCCACT	960
AAACAATTGG CTTCGTGATT CGTTAATTCA GTAAACGAT ACCAACTTC CTTACCTAAG	1020
TAAAGGAGC AATAGTATC AAGATAATCT TTCACAAAT CTTGACAACT TTGTAATAGT	1080
ATATTTCGAT TGAGCTCTCT CAATAAGTAT TCCCAAGAA TCATGCGAC GTGGTGAAAT	1140
AGTTGAGGAT AAATTTTTC AAGAATTTT TCGCCACTAA GGGCAAGTTG ATTTCTCATC	1200
ATTACCTTC CAATTCATGT AAGAAGTCTT GTCCAGTCTT GGAATCTTA ATAATTCAGA	1260
CTTAACCTTC AAGACTAATG GCGATGCATT TTCTCTGTA ATCTCTTGAA TATCATCCCA	1320
AATATATCCA AGTGAATCAT TCGCACCATC AGACACAGCT TCCGAAATCG TAACTTGAGG	1380
TGCACCTCA TTCAATTCAA CATCATACAA GGCTATGACA TGGTGAACCA TAAATTTTT	1440
TAACTTCCC CTGACGAAAA CATCGTAGAT TCGAGGATTA GAGTAGCTTC TAACAGTAAA	1500
CTCCGCTCTC TCCATAACT CTCTAGTCAG GCTTTCGCT AGTCTCTTAC CAAGTTGCTG	1560
ACTGCCTCCA GGTAGATCAT ACGATGTTG ATAAGGCCT CTGCTTTTT CAATGCAAG	1620
TAACTTCCA TTTTCAAAGC AAACACAGTA GACCCCAAAG TGATTTTTGA TTTCATCCA	1680
ACTCCTCTTA CTTCAAAGAC CAGCCACCAT CTATTGTCAA GATTGTCTCT TGCATGGCGC	1740
TCGCTTTTCC ACTTGCTAAA AAAAGACTAA GCTCTGCTAT TTCTCTGGC TCAATCCAGC	1800
GCTTGATGG GGTTCACATA GCCACCCAGT CAGCCAAACC ACCTGGTTCA AAATCGCAG	1860
CGGTCATAGC TGCTTGACT GCTCCTGGAG CGATACCAA GACCTGAATC CCAGCTTCAG	1920
CATAGTCTAG AGCCAACGTC TTGGTGAAGC CAGCCAAGGC ATGCTTCGAT GAATATAGG	1980
CGTGACCACC TCCACCTGCT AGGCTAGAAG CAATGGAACA CATATTGATG ATGATTCCTT	2040
TTTATTTC CAGCATTGT GTCAAAATA ACCGAGTCAA CTCTACTGGA ATAATGTAGT	2100
TGATTTCAAA AATCTCTTGA ATGCTCTGCG CCGTTTGTTT CAACAGTGGT TTGTAATCAT	2160
CCAAAATTC AGCAGTATTA CACAAAACAT CCACCTGAGG GCACCACTCA AAAATAGTGT	2220
CCAACTCAA GGTCAAATCT CTCTGTAAAA AGCGAAAATC ACCCTCTAAG AGTGGCTTTT	2280
CACCTTGGTC AACTCCATAA ACTTGAAGC CTTTCTTAA AAAGAGCGCA GCTTGAGCCA	2340
ATCCGATCCC TGAATCACT CCGTAAATGA GTACACGTTT AGTCAATGAC TTCTACCCAA	2400
TCGCTGCCA AAACATCACA AACTGTCGGG CTCACATGG AAAACCTTC TCCTTGCCA	2460
GAAAGCTTGA TTAGGAAATG AGGTGTCATT TCAAGTGCAA GCCCATTTTG CTCGATGTA	2520
TCAAGGATTT GGACATAGTT TTCCGACCT CCCCAACGAG TTCGTACATA TTTTCTCTTA	2580
GCCTTTAAAC CAGGCAGGAT CTCTTCAAAAT GTCATGTTTT TCTCTTTAA TTCTACATT	2640

TTCATTTAAT TATAGCAAAA AACCGCTTTA TACGGCTTTT TGAATGTGAG TTATTCACAA	2700
CTGTACTACT TTACGGCAAA TTATTCCTTG CAGCAAGATA AATTTTCATAC CATTCTTTTC	2760
TTGTTAAGCT AAAGTTTGCC GTCGGCTAA CTCTCTCAA GTGCTTAGGA TTGTGTGTAC	2820
CTACGACTGC CTGCATTTT GCTGGATAAC GCAATATCCA AGAAATGGCA ATAGTTGAAG	2880
AGGTACTCC ATATTTAATA GCTAAACGAT CAAGTACTTG ATTTAAAGCT TGAATTTCT	2940
CATTTCCAAC AAAATTCCT TTAATATACC CGAATTGTAA GACAGACCAT GCTTGAATGA	3000
CCACATCGTG TAATGGCAA TATTCAAAAA TGTGCCATC TCGCATAGCT GCTTACTAT	3060
CTTCCATATT ACATGAAAA GCTGATTCAA ATCTGGAGT AAAAGCGCA CTCAAATTGA	3120
GCTGATTAAC AGCTAACGGC TGCTTGACAT CTTTTTAAAG CAATCCATC ATCATAGGAT	3180
TTTGATTAGA AACTCCAAAA TCTCGAATT TACCTTGTTT ATAAAGGAGA TTAAGGCTT	3240
CTGTACTCTG GTACAGATTC ATCAAGCAT CTGTCGATG AAGGACAAAG CTATCTAGAT	3300
GATCAATCTT CAATCTTTGC AAAATACCGT CTACTGATT TATAATATAG TCCTTAGAAA	3360
AATCAAAATA GGTAAATTCT TCAATGCGAA TGCCACATTT GGACTGAATC CACATCTTTT	3420
CTCTTAAATC TGGACGATTT TTTAGGACAA GACCTAACAG TTCTTCACAA CGACCACGAC	3480
CATAAATATC AGCCAAGTCG AAGGCATTGA TTCCAACAGA AAGTGTGTT TCTACAAGCT	3540
CTTCAACTTC TTTACAGAT TTATCTTTTA TTCTCATCAT TCCGAGAACA ATTTCTGATA	3600
ATTCCTTTGC ATCTTGACCA AGAGTTATGT ATCTCATCAA ATTTTCTCC TTTAATTCT	3660
AACATTCTTC CTTTCAATT AACAATAAAC CGCTTTGCAA CGACTTTTG ACTATACTC	3720
ACTCCATTTT ATCTTCTTAA ACCCAGGAA CAAGACAAG ATTCCAATAA AGAGGACAGC	3780
TAAAGGAATA ACTTTGTAA GGAATACATT TGAATTCCT ATCCATCAT AATAACGGAG	3840
CAGAGAACC ACCACAAGAT GGGCAATAAT CATACTGACA AATGGACGAA AGACCGCTTC	3900
TTTCCAATTC CAAATACCGA TAACTAGCGA AATCGTAAAG ACAGACAAAC TATCCAGGG	3960
AGCGGAATA TAAAGGGTC CTCTTGATAT GAAGCTTACC ATTCCTACAT ATCCTAAAC	4020
AACTAGAAGA ACTATAGTCC CAACAACAAT GTAAATGCCA ATTTTCATT TAGGAGAATC	4080
TTGGATTAAT CTCTTCTGA AAATTGTGGC CACAAGTCCA AATCCAATCA GAAATAAAG	4140
AAGTTGCCCT AAAAATGTGA GCAAAATGAC TGTTAAGAGA GGACCTTAG AAAAATCACT	4200
TAGTAGTTGA TAATAACGTA ATACCGCCAG GACAAGAATT GCGCTCAAAA GGGACTCTT	4260
GATGAACTG CGAGGTGCTC CTTTGAAT CTCTTTCAAT ATTTTTPAG GATCTTACC	4320
TAGATAATCC TCTGCATCA TGCCATCTCG TTCTGCTTCT GAGAAATCTA GCATCATCAA	4380

724

ATAGATCTGC	TCTCTGAGAT	AGTCTTCATC	ATAGAGAAAT	CCAGCAAGAT	TAAACCTTTC	4440
CCACAACCTCC	TCAAAATACT	TTTGATTCTC	CTCAGAAAAAC	TCATGTAGCA	AAGCGCTTGT	4500
TTCTTGGTAA	TACTTTCATT	TCCTCATGGT	TTAACCCCA	TTCTTAATCC	CTTCTACTTT	4560
TTGACTCAAA	TGCTCCCAT	GTTCGCAAAA	GACTGAGACA	CGCTCTTCTC	CTTCTTTTCA	4620
TAAAGAAAAA	TACTTCCGAT	CTGGACCATC	TGGCCAGCGG	CGCATGTGCG	CTCTTATCCA	4680
TTGATTTTTT	TCTAACTTTT	GCAACAAAGG	ATAAATAGTT	CCTGGAACGA	TAGTATCAAA	4740
TCCAGCCTCT	CGCAAAGTCT	GAACCAACTC	ATAACCATAC	CGCTCTTTTT	GACCAATCAT	4800
ATCCAAAGACA	CAACCTTCAA	GAACACCTTT	TAATAGCTGA	GTTCCTTTCA	TCACTTCTCC	4860
CTCTTAATCT	ATTTTGTAA	ACCTACTAGT	GACTTCACCT	ATAGTATATC	ACTTCTACAC	4920
TAGTTTGTAA	AGCATAAATAG	TTAATACTCT	TCGAAAATCT	CTTCAAAACCA	CCTCAGCGTC	4980
GCCCTACCTT	ATGTATGGTT	ACTGACTTCG	TCAGTTTCAT	CTACAACCTC	AAAAACATGT	5040
TTTGAGCTGA	CTTCGTCAGT	TTTCACTACA	ACCTCAAAAC	AGTGTCTTGA	GCTGACTTCG	5100
TCAGTTTCAT	CTACAACCTC	AAAACAGTGT	TTTGAGCTGA	CTTCGTCAGT	TTTCACTACA	5160
ACCTCAAAAA	CATGTCTTGA	GCTGACTTCG	TCAGTTTCGT	CTACAACCTC	AAAACAGTGT	5220
TTTGAGCAAC	CTGCGGCTAG	CTTCTAGTTT	TGCTCTTTGA	TTTTCATTGA	GTATAAATAA	5280
AAUUCAGAA	CTAGCCTGAA	CTAGTCTGT	CTACTTTTAC	CCAATCACAC	TTTCATTTCG	5340
TACAGCTGGA	TCAACTGTGA	GAAGGCTTAA	TTTGCCATCA	TGTTGACGCT	AGAGAATCAT	5400
ACCCCTGGCTG	ACATATTTTT	TCATCATTTT	ACGTGGTTTG	AGGTTAGCAA	CGATTTGAAC	5460
TTCTCTGCG	ACCAATCTCT	GTTCATTTCG	ATAGTATTTT	GCAATTCCTG	AAAGAACTCG	5520
ACGATCTTCT	CCATCACACG	CATCCAAGCG	GAATTGAAGC	AACCTATCTG	AACCTTCTAC	5580
TTTAGACACT	CTTTTGACTT	CTGCGACACG	GATTTCAACC	TTGTCAAAAT	CTTCAAACTT	5640
GATTTTCACT	TTGTTTAGTT	TGAGCTCAAC	TTCTGTCGGA	TTCCATTTCT	TTTCGACTGC	5700
TGTTTATATG	CCTTCCATTT	GTTCCTTGAT	ATAGGCGATT	TCTTCTTCCA	TATTTAGAGG	5760
TGGAAAGATA	GGTGTTCCTT	TGGCAACTAC	AGTCACATCT	GCTGGGAAGT	CAGCCAAACT	5820
CAAGTTTTC	AGACTAGAAA	CTTCTTCCAA	ACCAAGTTGA	GTCAAAACCT	CACGACTAGT	5880
TTCCATCATA	AATGGTTCAA	TCAAGTGAGC	AACCTACAGA	ATGCTGCTGT	CCAGTGGCT	5940
CATGACACTT	GCCAATTGGT	CACGAAGAGC	TTTATCTTTG	GCCAAGACCC	ATGCTGCGGT	6000
CTCATCGATG	TATTTATTTG	TACGAGAGAT	CAGAGTCCAG	ACTGCTTCAA	GCGCACGTGG	6060
ATAGTCAACT	GCTTCCATGT	GTGTATGGAA	GTCTGGGATT	GATTGTWCTG	CAACCTCAGC	6120
AAGAACATGA	TCATATTCAG	TCACACCTTC	TACATAGGCA	GGGATTGTGC	CATCAAAATA	6180

CTTATTAAATC	ATGGAAACCG	TACGGTTAAG	GAGGTTCCCA	AGGTCAATAG	CCAATTTCATA	6240
GTTGATACGG	CCGACATAGT	CTTCAGGAGT	AAAGGTTCCG	CTTGAACCAA	CTGGAAGGTT	6300
ACGCGATAGG	TAGTAACGAA	GTGGATCTAG	TCCATAACGC	TCTACCAACA	TTCAGGGTA	6360
AACGACATTC	CCTTTTGACT	TAGACATTTT	TCCGCTTTTC	ATGACAAACC	AACCATGGGC	6420
AATCAACGA	TAGGTAAAT	TAACATCCAA	CATCATAGA	AGGATTGGCC	AGTAGATAGA	6480
GTGGAAGCGA	AGGATATCTT	TTCCATCCAT	ATGGAAGACT	GTTCATTTCC	AGAACTTGTC	6540
AAAGTTACCA	TGTTGGTCTT	GAGCGTAGCC	AAGAGCTGTC	GCATAGTTAA	GAAGGGCATC	6600
AATCCAAACG	TAGACAAAGT	GTTTTCGATT	TGATGGGACA	GGCACTCCUC	ATGTAAGGTT	6660
TGTACGAGAT	ACCGCCAAAT	CTTCCAAAGC	TGGCTCGATG	AAGTTGGGTA	GCATTTCAAT	6720
AAGCGGACCA	TCTGGCGTGA	TAAATTCAGG	ATGAGCTTTG	AAAAATTGGA	CCAAACGGTC	6780
TTGGTATTTG	CTAAGCGGAA	GGAAATATGA	TTCTTCAGAA	AGCCATTCAA	CTCATGACC	6840
TGATGGAGCA	ATACCACCAG	TCACATTTCC	AGCTTCATCA	CGGAAACTTT	CTGCCAGCTG	6900
GCTTTCTGTA	AAGAATCTTT	CGTCTGATAC	TGAATACCAA	CCAGAGTATT	CACCCAAGTA	6960
GATATCATCT	TGAGCAAGTA	AGCGTTCAAA	GACTTGTGGC	ACAACCTTTT	CATGGTAGTC	7020
ATCAGTGTGA	CGGATAAAAT	TATCGTATGA	GATATCTAGT	AATTGCCAGA	GTCTTTTAAC	7080
TCCAACCGCC	ATTCCTATCA	CATAGGCTTG	AGGTGTAATA	CCAGCTTCTT	CCGCTTTCTG	7140
CTGGATTTTC	TGACCAATGT	CATCAAGACC	TGTCAGATAA	AATACATCGT	AGCCCATCAG	7200
GCCTTTGTAA	CGTGCTAGGA	CATCACATGC	GATAGTTGTG	TAGGCAGAAC	CGATATGAAG	7260
TTTCCCGAGT	GGATAGTAAA	TGGGCGTTGT	AATATAAAAA	TTTTTTTCAG	ACATAATTTT	7320
TCCTTTCGAG	GCAAAATGAA	CCGTTTTCCT	TAACACTTCA	TTATATCACA	TTTTTAATGA	7380
ATTTCATATG	GGAAATCCAT	ACAAAAACAA	GATAGACGAG	TGTCCTCTTT	GTTGATCTCA	7440
TTTCATAACGA	AGGGCTTCAA	TTGGATCAAG	TTTCGATGCC	TTGTTGGCTG	GCAAGACTCC	7500
AAAAATCATTA	CCAACACTAG	CCGAACTGCA	AGGAGCTAAT	AGGGCGACTG	GGATTGATAC	7560
TCCAACCTCT	ATACCTTCTA	TTAAACCTTG	CAGTAACAAA	CCTGCTAAGG	CAGTTAAACC	7620
ACTTGCATAT	GTCAAGCCAA	TTAAGCCACC	TAAACAAGGC	AAATCATATG	ATTCAATCAA	7680
AAATCGAATT	AAATATTTGG	CACGTGTTGC	ACCCAAAGCC	TTACGAAGAC	CAATCTCAGC	7740
AGTGCGCTCT	GTCAACGAAA	CCAGCATGAT	GTTCATGACA	CCAGTTCCCT	CAACAAGAGG	7800
AGAAATCCCT	CGGATGGAAC	TAAATATCGT	CGTCATAAAA	CTAAACGATT	GTTGAATTTT	7860
TGCAAAATACA	ACGGACTCAT	CTGCCACCTG	GTATTTCTCCC	TGTTGTAAAG	CTGCAAGCTC	7920

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TGTCATTTT	CGTCCAGT	CTGGACCCAG	AGTTGGGGTT	AAACTGGTAT	CATTCACTCG	7980
AAAGACAATA	TTAGCTATT	CATCTACATT	AAAATTCGCA	GCAAGGGAGA	TATTGGTAGT	8040
AATAGGCAAG	CCACCAAAAC	CATATATTTT	TGATCTTTTA	GCCCTCCGGAC	TAGTATAAAC	8100
CCCAATGACC	CGTAACTAA	ATCCATTGAC	TTCTACAACC	TTGTAAATAG	CTCTTTGAGG	8160
AGATTCAAAAT	AAACTAATGG	ACAAATCCCT	ATCTAGCAAA	ATGACACTTG	CAAACTCTTT	8220
GAAATCTGCG	TCTCTCAGAC	TACGACCTGC	AATCAATTTCA	TTCTTAACAG	CGTCCATGTA	8280
AGTTCTGTTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGTAT	AGGTCAAGAT	8340
GGCATTCGTT	GAATTGGTTA	CATAGTAAC	ATCCACTCCC	TTCACTTTAG	CTGCTCTTTG	8400
GACCCAGGAT	TCTTGCGGTT	TTGGCGGTT	AACAGGAAC	TCCCTTTCCT	TTCCAGAAAC	8460
CGTAAAGCT	GATTGTTTCT	GAGTAAAGA	CCCTCTTTTA	CTTTTTTTAG	GAGAGAAAAA	8520
GACGTAATA	TTTTTCTGAG	ATTTAGTCAT	ATCTTTATTG	ACTTGACGAG	ATAGGGAAATC	8580
ACCCAAAGCC	ATAATCAACA	CAACTGATGA	AACACGATA	ATAATCCCAA	TCAATAGTAAG	8640
CAAGAAGCC	ATCTGTGAG	CCATGATAGA	TGAAAAGGCA	AATTTCAGAT	TCTGCATCTT	8700
AGTTTTCCTC	CTTTCCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA	8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTC	8820
CTTCTTTATT	CAAACTAAC	AATAATTGCA	TAATTGTGTT	ACCTGTTTTG	GTATCCAAAG	8880
CTCCTGTGCG	TTTATCGCGT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG	8940
CTACACGTTG	CTTTTGACCA	CCAGATAAAT	CTGAAGGTAA	ATGGTGACTA	CGTTCGTGCA	9000
ATTCAACCTT	GTCTAAATAT	TCTCAGCCA	ACTTGCGAGG	TTTTGAAGAC	GAAACTCTCG	9060
CGTAAATCAA	GGGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT	9120
GCTGAAAGAC	AAAACCGATT	TGTTGTTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC	9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGTTGTATCC	AACATGCCAA	9240
TGCTATTCA	CAGATGGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTCAC	9300
CCTCATTAC	TTCTAGATTG	ATATTTTTGA	GAACCTGCAG	TTCTTGTTCA	CCATTACGGT	9360
AACCTCTGAA	GATATTTTTT	AGACTAATTA	GTGCTTCAT	CAGCCTTAC	CTCTTTTCTT	9420
TCTTCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCGTTAA	ACCAGAGTGT	9480
ATTCTTGAT	TTTCTCGGTC	AGCAATTCCC	AATGAACCT	CAACTTTTTT	AGCCTTTTGT	9540
TGTTCTTCCA	CAATCCAGAC	ATAATTTTTA	CTATCATCCA	TTACTAGACT	GCTAACAGGA	9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAACC	TCAATGTTGA	GAGAAAAACC	TTGTTTCAAA	9660
TCACCAACCT	CGCCTGTAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATTCCCG	9720

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GCTGCTGAC TAGTGTCTT ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTC 9780
 CCAGTCCATT TTATTACAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA 9840
 AGGTGGCTA GATTGACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA 9900
 ATATGAACCA TAACTGACT CGCCCTGTT GGAGATTAG AACATTGCT ATTGACTTGG 9960
 ACCACAGTTC CCTTAGGGT ACTGAGAACA GTTGTTCAT CCAATTGACT TTGAGCCTTG 10020
 CTTAATTGCG CCGCAGCATC TGCACGCGA TCACGGGCAT CACCCAAATG AGGTCAATA 10080
 GAAGCAACAG AATTCCAGC CACTGGAGTT GGGCTTTCGA CCGTTGCTC TTCTCTCTCT 10140
 ACTGGCGCTG GTAACTGTGG AGCCGGAGCT GAAGCGGCTT CATTTCTGTC TTGATTGAGT 10200
 TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCTGC 10260
 GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTTCG TGACCTTATC GCCCAGACAA 10320
 ACAAGGATTT CATCTAAAT ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTC 10380
 GCTGTTACTG TCCCTGACAA TAAACAGAG GAGGCCACGC TTCTTCTCTT GGCAACAACA 10440
 AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC 10500
 CCAGCACCCA ATACAATAC ACTCGCAGCA CCGATTGCTG CATACAGTTG CCACCTTTTTC 10560
 GCTTTACCAT TCTTTTCTT CATATTGAAA CTCCTTTTCT TTTTTCACAT ACTTTGCTAT 10620
 TATACCAAT TTCCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT 10680
 TGCCTTTTCG 10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCCA 60
 GGGTCGGAAC AGGAGCGGC AACGAGGGAG CTTCACAGGG GGAAACGCCCT GTATCTTTTA 120
 TACTCTGTCT GGGTTTCGCC ACCTCTGACT TGAGCGTCTGA TTTTGTGAT GCTCGTCAGG 180
 GGGCGCGAGC CTATGGAAAA ACGCCAGCAA CGCGGCCTTT TTACGCTTCC TGGCCTTTTG 240
 CTGGCCTTTT GCTCACATGT TCTTCTCTGC GTTATCCCTT GATTCTGTGG ATAAACGATAT 300
 TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCGA ACGACCGAGC GCAGCGAGTC 360

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AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAAACG CCTCTCCCCG CGCGTTGGCC	420
GATTCAATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGGCAA	480
CGCAATTAAAT GTGAGTTAGC TCACTCATTAA GGCACCCAG GCTTTACACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CGTGATTACG AATTCCGAGCT CGGTACCCGG AAATCCAGA AATGCTTGA AAAAATCCT	660
AGAAGATGTT ATAATACTAA ATTGTAAGGG TTATCACAATA TAACCTAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAACTAT GGCTTCTAAA GATTTCCACG TAGTGGCAGA AACAGGTATT	780
CAGCGACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTGCTTC AGATATCACT	840
CTTGAGTACA AAGGTAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTTGCCCAAG GTGCTGACGT AACTATCTCA GCTGAAGGTG CAGATCCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAT GGAAGAAAGA GGATTGGCAT AAGGAAATG ACAGAAATGC	1020
TTAAAGGAAT CGCACTACT GACGGTGTG CAGTTGCAA AGCATATCTA CTCGTTCCAGC	1080
CGGATTGTCT ATTTGAGACT ATTACATCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
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CGCTCGTGTA AGAAGCAGCT CAAGTTTTG ATGCTCACTT AATGGTTCTT GCTGACCCAG	1260
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TGCAAGAACG CGCAGCGAT WTCOCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAATT GCCAAACCCA GCTTCTATCA ATGAAGAAGT GATTGTGATT GCGCATGACT	1500
TGACTCTTTC AGATACAGCT CAATTGGACA AAAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCAGTAC ACTTGAATTT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCTTGCT GTTAACGGGA	1680
TCACTGGAGA AGTGATTATC AACCACAAGC ATGAACAAGC GGCAGAAATT AAAGCAGCTG	1740
GTGAAGCCTA TGGCAAAACA AAAGCTGAAAT GGGCACTTTT GAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCG TACTCCAAAA GACGTTGAAG	1860
GTGTTAAACA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TGTGATGCTG	1920
ATTCTCAAGA CTTCCTCACT GAAGATGAGC AGTATGAAG ATACAAGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTGCTA CAATGATAT CGGTGGAGAT AAGGAACCTC	2040
CTTACTTCGA TATGCTCAC GAAATGAACC CATTCCTTGG ATTCCGTGCT CTTCGTATCT	2100
CTATCTCTGA GACTGAGAT GCTATGTTCC GCACACAAAT CCGTGCTCTT CTTCGTGCTG	2160

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 CAGCGAAAGC AGTCTTTGAT GAAGAAAAAG CAAACCTTCT TGCTGAAGGT GTTGCAGTTG 2280
 CGGATAACAT CCAAGTTGGT ATCATGATCG AGATTCTGCG AGCGGCTATG CTTGCAGACC 2340
 AATTGTGCTAA AGAAGTTGAC TTCTTCTCAA TTGGTACAAA CGACTTGATC CAATATACAA 2400
 TGGCAGCAGA CCGTATGAAC GAACAAGTTT CATACCTTTA CCAACCATAC AACCCTACAA 2460
 TCCTACGCTT GATTAAACAAT GTGATCAAAG CAGCTCACGC TGAAGGTAAA TGGGCTGGTA 2520
 TGTGTGGTGA GATGGCTGGT GACCAACAAG CTGTTCCACT TCTTGTCGGA ATGGGCTTGG 2580
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 CTATATCTGT TCCATATGGA GATCATTACC ATTACATTC TAAGAAATGAG TTATCAGCTA 3660
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 ATCCAGGAAC TACAAATACT AACACAAGCA ACAACAGCAA CACTTAACGT CAAGCAAGTC 3840
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ATGTAGAATC TGATGGCCTT GTCCTTGATC CAGCACAAAT CACAAGTCGA ACAGCTAGAG	3960
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CATATAATCT GTTAACCTGAG GCTCATAAAG CCTTGTTTGA AAATAGGGT CGTAATCTG	4440
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AATTTGGTGA TGATTATTG GCATTCTTAG CACCAATTAC CCATCCAGAG CGACTTGGCA	4560
AACCAAAATC TCAAAATTGAG TATACTGAAG ACGAAGTTCG TATTGCTCAA TTAGCTGATA	4620
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ATGCATATGT AACGCCCTCAT ATGGGCCATA GTCAGTGGAT TGGAAAAGAT AGCCTTTCTG	4740
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CCTCAACAGC CTCCAAGCAA TCCAATTGAT GAGAAATPAG TCAAGAAGC TGTTCGAAAA	6780
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GAGTGGTTTG ACGAAGGCC TTAGGAGCCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
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GGTAACGCTA GCGACATGTT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCTCG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCTCAAGT AGAGAACTCT	7920
GTTATTAAAG CTAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAA AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA ACATAATTTT AGCAGAAATA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACGTA GTAAAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GGAAAAAGA ACTGATTTCT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTGACCTT GGTGAATCTC GACTTCAACG TCTTGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTCATGG CAAGTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTAC GATTTCACTG TCTTCATCCA ACATATGTTT CAAGGTTCA GTCAATGTT	240
GGTGCAATAT AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACCTAAA TTATCGTTTT	300
CATGGATTTT TAAGCCATCG ATCGTTGAT CACGCACGCG TGTTGTGACG CTTCGCTTAA	360
CGACATCGCT AAGAGCAGCT GTCATAAGCT CTTGGTTTTC TTCAATGGAC TTGCTGGAT	420
CAAAGCGAAG AAGACTTGTC ATACCTTGAG GAAGAGTGGC AGCCTCTACC ACTACCGCTG	480
GTTCGTCCTAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTGGCA	540
AGAAGATGAT GTTACGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGCT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

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CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATCTC TTTTCTTCA GCGACTTGA	720
TAACCTGAGT AGCTTCTTTC TCAACCTGTG CTTCGTGTTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTTGAGAC CTTCCTTGCAT AACAGTCTCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTTCAATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAATA GTTACGGAAT TCATCTGAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTCA GTACAGTAAC CAAACGTGAT GTCCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAOTCGCTA	1080
CAAAAGTCTCT AGATGCATA TATTCGCCAG TAGGSCCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACCTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTITT AGCTAGAGCT GTTTTAGCAC CTTCGAAGGC TCGCGCATG ACTTCAACAG	1260
CGTCACTGTT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAAACTGTTA	1320
AAATCGTCTC TTCAACAGGT TTCACTCACTG CCTTATAGGC AACTTCCACA CCTGATTTGA	1380
AGGCCAGAGC CAAGTCTTGA CCTGTAACT CGTCTTATC CTGTAGATCT TGGGAAATC	1440
CACGGAJAAG CTGAGACGTA ATCACTCTGT AGTCCCAAG CGCACCCATC AAAAGCCCTT	1500
TGGCAAGAAT GCTGCTACT TCCTCAACTG TAGAAGCTGG CTGTCTGCA ACTTCTTTAG	1560
CACCAATTTT AATGGTCAAT CCCATATTTG TCCCATATC TCCATCTGGA ACTGGAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAGCG AGTTGATGA GCCTGCACCA	1680
TTTCTTTGAA TAAGCTAGTA GTAAATTTTG ACACGGTTAT TCTCTTACAA CTTTGATATT	1740
TTGAATGATG ACAATTACAG TCTGAGCAGT AATTCCAAGC TGGTTTTCCA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCTTTT ACAGACGACG CTTTGAATA	1920
ATTTTCCTTA CTTAGCAGG CTGGAATAAT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11915 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

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CCGGTTCGGG CTGTTCCGCC ATTAAGCGG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGMTG	240
AGATTTCCCA TGAATTATATA TCAGTAAGAG CCTGAGAGA TAGTCAGGTA GATAGGTTAG	300
AAGTGAAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGTCGAGG ACTTATCCAA	360
AGTAATCTAG AATATGAAAG CGAACGGTTT TCTTAAATTG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCCT ACAAGCAGAG	600
GCTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTAGT GGTAAACATA	660
AGGCTTCCA AGCTTTGTCT GCGAGTTGGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTTT	720
TGTACCAAGT TTTTGACTTG GCGCGGTAGC TCAGGTGGTT AGAGCGCAGC CCTGATAAGC	780
GTGAGGTGCG TGGTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTTCACTA AGAGGACACG GCGTTGTCC CGTATAAATC ATTTTGGAGG	900
ATTACCCAGT TCCGGCTGAA GGGAAACGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTCGA ATCCACATC CTCCCTTTAT ATTAACGCGG GATGAGCAGC CTCGGTAGCT	1020
CGTCGGGCTC ATAAACCGAA GGTCTTAGGT TCAATCTCTG CTCCCGCAAT AAGGCTCGGT	1080
AGCTCAGTTG GTAGAGCAAT GGATTGAAGC TCCATGTGTC GCGCGTTGGA TTCCGTCTCG	1140
CGCCATTTAT ATATTTTGA AGGGTAGCGA AGAGGCTAAA GCGGCGGAC TGTAAATCCG	1200
CTCCTTCGGG TFCGGGGGTT CGAATCCCTC CCTTCCATT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCCAAAA CCTTCAGTGT GGGTCAATT CCTACTGCCC GTGTAAATAG	1320
AATTATGCGC GGTGTGTGA AGTGTTTAAC ACACCAAGTT GTGCTCTGCG CATGCGTGGG	1380
TTGATCCCC ATCACTCGCC TATTTTATAT TGGGGTATAG CCAAGCGGTA AGGCAAGGGA	1440
CTTTGATPCC CTATCGGTT GGTTCGAATC CAGTACCCCC AGTTACTATT TGCCGCGTGT	1500
GCGGAATTGG CAGAGCGCT GGACTCAAAA TCCAATGTCC GCAAGGAGCT GCCGGTTGGA	1560
CCCCGCCGCC CGGTATAGTA TAGTGTTAGG AACGTGTGTA TTCTTCGTTC CTTTTTATATA	1620
TTATTTTTGG TATAMTATA GTTATTCAAA TTTTATTTAG ATTAAGAAAG TGTAGGGGAG	1680
TATGCTCTGT TCTATCGATT TATTAAAACA TCGGTATTTG AAAAATATTA AAGAAAATCC	1740
TGAATTTGTT GTCCGAATTG AGTTGGAGTA TCCTGTGCA AGTTTAGAAG GGGATGCTAC	1800

AGATGTGAGG	ATCTATTCTA	TATTATTAGT	TCTACTTTGG	ATCTACCCGT	1860
AGCAAAAGTA	GATGATTTTG	GCAATCTGAT	CCAGTTAGTA	GATCCGATAA	1920
TATTTTATTT	GAAGTTTCCT	ATACAACGAT	TGAGTTTGCA	TTTGGTAAAG	1980
TCAAGAGGTC	GAAAATCGTT	TCAATAATTA	TATGAATGTA	ATTCAAGAGAA	2040
ATCAAAATCAT	GCTATTGTTG	GCTGTGGTAT	CCATCCCAAC	TGGGATAAAA	2100
TCCAGTGGCT	TATCCACGCT	ATCAGATGTT	GATGGATTAT	TTGAATTTGA	2160
TATTAAATCA	GATTTACATC	ATTTCCCTGA	ATATGGTACT	TTTATCTCTG	2220
TCAGCTGGAT	ATTTCAAAAA	CCAACACTCT	ACGGGTGATT	AATGCTTTTA	2280
AGCGGCTAAG	GCTTATTTAT	TTGCAAACTC	TGAATTTTCT	GCTGCGGATT	2340
AATTTCAAGG	GATATTTTCT	GGGAAGAATC	TATGCAATGG	ATCTATCCAG	2400
GCTCAATGCT	AGACTCCTTA	ATGATGA AAC	TGATTTTTTT	GACTATCTAA	2460
GATTTTTTACT	GCGGAACGTG	ATGGGCAGAC	CTATTATTTT	TATCCTATTC	2520
CTATTTGGCT	ACGTCCGAAA	TCCAAGCATT	TGCTCTGAAT	GGGGATGAGG	2580
CCCCCAAGAG	AAGGATTTTG	AACTCATCTG	TAGTTACCTG	TACCAAGATT	2640
AGGAACAGTT	GAGTTTCGTA	GTGTGTGTAC	ACAGCCACTT	GATAGGACTT	2700
AGCTTTTCAC	TTGGGATPAT	TGCTTAATTT	AGACAAGTTA	GAAGCTTACT	2760
ACCTTTCTTT	AAAGTATTTG	GTATGATTTA	CAAGTCTTTA	AGGAGACAA	2820
AAATCTTACA	GATGAGGAAG	AAACTACGAT	TATTGAATTT	TCCAAAGACT	2880
AGCTGAGGAG	GGACTAGTGG	TGAGAAATTA	GGAAGAAATG	ACCTATTTAC	2940
AGAAGAAATT	AGCCTATAAT	TTCTCTTATA	AAGGGAGAA	TTTCTGAAAA	3000
AATGACGAG	ACTATAGATA	AAGGATAGAG	AGTAATGACA	TTAGTTTATC	3060
TGATGCCAAC	AATACAGTAA	CTGCCAGCCA	AGCAATTTTG	CAAGGTTTGG	3120
CGGTTTGGTT	ACACCGGATA	CTTATCCAAA	GGTAGATTTG	AACTTTTGACA	3180
TGCTTCTTAC	CAGGAAGTTG	CTAAGCTAGT	TTTGTGAGCA	TTTTTAGATG	3240
TGAGGAGTTG	GACTACTGTA	TCAACAATGC	CTACGATAGC	AAATTTGATA	3300
TGCACCATTA	GTGAATTAG	ATGGGCATAA	CAATTTGGAA	CTTTTCCATG	3360
TGCTTTTAAG	GATATGGGCT	TGCTTATTTT	GCCATACTTT	ATGACGACTG	3420
ACATGGTTTG	GAGAACAGA	TTGTTATCTT	GACAGCGACA	TCTGCTGACA	3480
TGCTATGGCG	GGGTTTGCGA	ATCTGCCCTG	TACTGAGATT	ATCTCTCTTT	3540

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TGTTGTCAGC	AAGATTCAAG	AGTTACAAAT	GACCACTCAG	ACTGGCGACA	ATACTCATGT	3600
TATTGCTATT	GATGGTAAC	TTGACGATGC	GCAACAAAT	GTGAAGCACA	TGTTTAAACGA	3660
CGTGGCTCTT	CGTGAAAAAT	TGACTACCAA	CAAGTTGCAA	TTTTCATCAG	CTAACTCTAT	3720
GAACATTGGT	CGTCTGGTGC	CACAAATTGT	TTATTTATGTT	TATGCTTTACG	CTCAATTGGT	3780
TAAAGACTGGT	GAAATTGTAG	TGCTGAAAA	GGTTAACTTC	ACAGTACCAA	CAGGAATCTT	3840
TGGAATATC	TTGGCTGCCT	TTTATGCCAA	ACAAATTGGT	TTGCCAGTTG	GTAAATTAAT	3900
CTGTGCTTCA	AATGACAACA	ATGTTTGTAC	AGACTTCTTT	AAAACACGTG	TCTATGACAA	3960
AAAACGTGAG	TTTAAAGTAA	CAACCAGCCC	ATCTATGGAT	ATCTTGGTAT	CTTCAAACCT	4020
GGAGCGCTTG	ATTTTCCATC	TTTGGGAAA	TAAATGCTGAA	AAGACAACCTG	AACTTATGAA	4080
TGCTTGAAC	ACGCAAGGAC	AATATAAGTT	GACAGACTTT	GATGCAGAGA	TTTTGGACCT	4140
CTTTGCAGCT	GAATATCGGA	CTGAGGAAGA	AACGGCAGCA	GAGATCAAGC	GTGTTTGTGA	4200
GTTAGATTCT	TATATCGAGG	ACCCCTCATAC	AGCTGTGCT	TCAGCAGTTT	ATAAAAATA	4260
CCAATCGGCC	ACTGGAGATG	TAACTAAGAC	AGTGATTGCT	TCAACAGCTA	GTCCATACAA	4320
GTTCACGTA	GTTCAGTAG	AAGCTGTAA	TGAAAAAGCA	GGTTTAAACAG	ACTTTGAAGC	4380
CTTGGCTCAA	TTACATGAAA	TCTCAGGCGT	TGCAGTGCCA	CCAGCAGTTG	ATGGGCTTGA	4440
AATAGCTCCA	ATTCTGTACA	AGACAACAGT	GGCAGCTGCT	GACATGCAG	CAGCGGTGTA	4500
GGCTTATTTA	GGACTTTAAG	ACAGAGGGAG	CAAACTGGTT	TGGAAAACCA	ACTGAGTTTC	4560
TTTTTCATCAG	GAGGAGAGAT	TGTTTAAAGAA	AAATAAAGAC	ATTTCTTAATA	TTGCATTGGC	4620
AGCTATGGGT	GAAAACTTTT	TGCAGATGCT	AATGGGAATG	GTGGACAGTT	ATTTGGTTGC	4680
TCAITTAGGA	TTGATAGCTA	TTTCAGGGGT	TTCACTAGCT	GGTAATATTA	TCACCATTTA	4740
TCAGGCGATT	TTTATCGCTC	TGGGAGCTGC	TATTTCCAGT	GTTATTTCAA	AAAGCATAGG	4800
GCAGAAAGAC	CAGTCGAAGT	TGGCCTATCA	TGTGACTGAG	GGTTGAAGA	TTAECTTAAT	4860
ATTAAGTTTC	CTTTTAGGAT	TTTTGTCCAT	CTTCGCTGGG	AAAGAGATGA	TAGGACTTTT	4920
GGGGAAGGAG	AGGGATGTAG	CTGAGAGTGG	TGGACTGTAT	CTATCTTTTG	TAGGCGGATC	4980
GAFTGTCTC	TTAGGTTTAA	TGACTAGTCT	AGGAGCCTTG	ATTCGTGCAA	CGCATTAATCC	5040
ACGTCTGCCT	CTCTATGTTA	GTTTTTATC	CAATGCCCTG	AATATTCTTT	TTTCAAAGTC	5100
AGCTATTTTT	GTTCTGGATA	TGGGATAGC	TGTTGTGCT	TGGGGGACAA	TTGTGTCTCG	5160
TTTGGTTGGT	CTTGTGATTT	TGTGTGCACA	ATTAATACTG	CCTTATGGGA	AGCCAACTTT	5220
TGGTTTAGAT	AAGGAACGTG	TGACCTTGCC	TTTACCAGCA	GCTGGAGAGC	GACTTATGAT	5280
GAGGGCTGGA	GATGTAGTGA	TCAATTGCCT	GGTCGTTTCT	TTTGGGACCG	AGGCAGTTGC	5340

TGGGAATGCA ATCGGAGAG TCTTGACCCA GTTAACTAT ATGCTGCTT TGGCGCTGC 5400

TACGGCAACG GTCTATGCTGT TGGCCCGAGC AGTTGGAGAG GATGATTTGA AAAGAGTTGC 5460

TAGTTTGAGT AAACAACCT TTTGGCTTTC TCTGTTCCTC ATGTTGCCCC TGTCCTTTAG 5520

TATATATGTC TCGGCTGAC CATTAACCTA TCTCTATACG ACTGATCTTC TAGCGGTGGA 5580

GCTAGTGTT CTAGTGACAC TGTTTTCACCT ACTTGGGACG CCTATGACGA CAGGAACAGT 5640

CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCCCTTTT ATGCGACAG 5700

TATAGGAATG TGGTGTATCC GCATTGGGAC AGGAATCTG ATGGGGATTG TGCTTGGTTG 5760

GGCTTTGCTT GGTATTTGGG CAGGGTCTCT CITGGATAAT GGTTTTCGCT GGTATTTCTT 5820

ACGCTATCGT TACCAGCGCT ATATGAGCTT GAAAGGATAG GAAATGCAAA AAACAGCTTT 5880

TATTTGGGAT TTAGACGGGA CTTTATTTGA CTCTTACGAA GCGATTTTAT CAGGGATTGA 5940

GGAGACTTTT GCTCAGTTTT CTATTCCTTA TGATAAGGAG AAGGTGAGAG AGTTTATCTT 6000

CAAGTATTCG GTGCAAGATT TGCTTGTGCG GGTGGCAGAA GATAGAAATC TGGATGTTGA 6060

GGTGCTAAAT CAGGTGCGTG CCCAGAGTCT GGCTGAGAAG AATGCTCAGG TAGTTTGTAT 6120

GCCAGGTGCG CGTGAAGTGC TAGCTTGGGC AGACGAATCA GGAATTCAGC AGTTTATATA 6180

TACTCATAAG GGGAAACAACG CTTTACCAAT TCTCAAGGAC TTGGGGGTGG AATCCTATT 6240

TACAGAGATT TTAACAATGC AGAGTGGCTT TGTGCGGAAG CCAAGTCCAG AAGCGGCTAC 6300

CTATCTGCTA GATAAGTATC AGTTGAATTC TGATAATACT TATTATATAG GGGATCGGAC 6360

TCTGGATGTG GAAATTGCCC AGAATAGTGG GATTCAAAGC ATCAACTTTT TAGAGTCTAC 6420

TTATGAAGGG AATCACAAGA TTCAAGCGTT AGCAGATATT TCCCGTATT TTGAGACTAA 6480

GTGATAAATA GATTGTCTCA GTTTGTGAC AGAGACCTAA CAAACTATT CAAGTAACT 6540

AGTTTGTAC AAGGAATAGA CAGTTCTGTT AAATAGGCCG GAGAGGGCTT TTTTCTACA 6600

TTTTTTGTGT TATGATAGAC AGGTACTCAT TTGAAGGAA TTGAAAGAA TGAAGAAAG 6660

AATGTATTA CGCTCAACAG TAGCCTTGTC ATTTGCCCA GTATGGCAA CTCGAACAGA 6720

AGAGTTCTT TGGACTGCAC GTAGTGTGGA GCAAATCCAA AACGATTTGA CTAAACCGGA 6780

CAACAAACA AGTTATACCG TACAGTATGG TGATACTTTG AGCACCATTG CAGAAGCCTT 6840

GGGTGTAGAT GTCAAGTGC TTGCGAATCT GAACAAATC ACTAATATGG ACTTGATTTT 6900

CCCAGAACT GTTTTGACAA CGACTGTCAA TGAAGCAGAA GAAGTAACAG AAGTTGAAAT 6960

CCAAACACCT CAGCAGACT CTAGTGAAGA AGTGACAATC GCGACAGCAG ATTTGACCAC 7020

TAAACAAGTG ACCGTTGATG ATCAAACTGT TCAGGTTGCA GACCTTCTC AACCATTGCG 7080

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AGAAGTACA AAGACAGTGA TTGCTTCTGA AGAAGTGGCA CCATCTACGG GCACCTTCGT	7140
CCCAGAGGAG CAACGACCG AAACAACCTCG CCCAGTTGAA GAAGCACTC CTCAGGAJAC	7200
GACTCCAGCT GAGAAGCAGG AAACACAAGC AAGCCCTCAA GCTGCTACAG CAGTGGAAAT	7260
AATACACAAC AGTTTCAGAAG CAAAGAAGT ASCATCATCA AATGGAGCTA CAGCAGCACT	7320
TTCTACTTAT CAACCAAGAG AGACGAAAT AATTTCAACA ACTTACGAGG CTCAGCTGC	7380
GCCCGATTAT GCTGGACTTG CAGTAGCAAA ATCTGAAAT GCAGGTCTTC AACACAAAC	7440
AGTGCCTTT AAAGAAGAAA TTGCTAACTT GTTTGGCATT ACATCCTTTA GTGGTTATCG	7500
TCCAGGAGAC AGTGGAGATC ACGGAAAGG TTTGGCTATC GACTTTATGG TACCAGAACG	7560
TTCAGAAATTA GGGATAAGA TTGCGAATA TGCTATTCAA AATATGGCCA GCGTGGCAT	7620
TAGTTACATC ATCTGGAAC AACGTTCCTA TGCTCCATTC GATAGCAAAAT ATGGGCCAGC	7680
TAACACTTGG AACCCAACTG CAGACCGTGG TAGTGTGACA GAAATCACT ATGATCACGT	7740
TCACGTTTCA ATGAATGGAT AAACCCGACT TGATAACATC ATTTTGACGA ATGAGATCTA	7800
GCTTTGCTGA TGGAAAGCGA TTCTCGTTTG TTTTCTCTT GTCACTACTT TCGAAAATCT	7860
CTTCAAAACCA CGTCAGTTTT ATCTGAACCT TCAAAGCTGT GCTTTGAGCA ACCTGCGACT	7920
AGCTTCCTAG TTTGCTTTTT CATTTTCATT GAGTATCAAT TTGAATGGAA AATGAAAAGT	7980
TATCATCTTG TAATGAGTAA AGCAACATTC TTGCAATCTA TTTTACTTTA TATCACAATT	8040
AATTAGTCAA ATATTGATAA ATCAATAAAA AGAGAGGGGA AGAAATGCTA GAGATTCAAG	8100
ATTTACTOTA TCAACTCCGC TTGCTGAGC AAGCGAGTAC GCAATTTGTTT GAAAAAAGGC	8160
TTGGGATTAG TTGACACCG TATCAGATT TACTGTTTTT GCTGGAGCAT TCTCCTTGA	8220
ACCAAAATGC GGTTCAGGAG CGTTTGAAAA TTGATCAGC TGCTTTGACA CGGCATTTCA	8280
AAATTTTGA AACGGAAGGT TTGTTGGAGC GTCATCGTAA TCCTGAAAT CAGCGGGAG	8340
TGTTGGTAGA GGCTGCGAAG TATGCCAAG AGCAGTAAAT GGTGAATCCC CCTCTGCAAC	8400
ATATCAGGGT TAAGGAAGAT ATGAAAAGTA TCTTAACAGA GTTTGAGAGA ACAGAACTCA	8460
GCCGTTTATT AAATAAATG GTTTTGGTA TTGAAATAT AGAAATTTAA GGAGAAATAG	8520
ATGTCAATTA TTTTAAACAC GATCGTTGCT TTGGAGCAAT TTTACTTTT TTATTTGGAA	8580
AGTATTGCCA CGCAATCAGA TGCAGTACT CTGTATTTA ATATGGAATA GGAAGAATTG	8640
GCTCATCGGT CAGTAAGTTC ATTTGTTCAA AATCAAGGAA TTTATAAGGC CTCGTAGAGA	8700
GTCTTCTCT TGTATGTCAT TTATTTCTCA CAGAATTTAG AAATTTGTAC TATTTTGTGC	8760
TTATTTGTGA TTGTTGCTGC GACTTACGCG TCTTAAACAG CGGATAAAAA ATTTATTTTG	8820
AAACAAGGTG GATCAGCTAT TTTGGCCTTG ATTAGTATTT TACTCTTTAA ATACACTTGA	8880

AGGTCGATTC	TAATCTCGCT	AATCCTTTT	AATCCAGAA	AAGGGAATA	TGTTATACTT	8940
GTTTTTAAGA	AAAAGTCTC	ATTGAATTGG	TTTTGAGGAG	TTAGAAATGA	AAGTATTAGT	9000
GACAGGTTTT	GAGCCCTTTG	GAGGGGAAAA	GGCAATCCA	GCTTTGAGG	CCATTAAAGG	9060
TTTACAGCT	GAAATCCATG	GTGCTGAGGT	CCGTTGGCTA	GAGGTGCCGA	CAGTTTTTCA	9120
CAAATCTGCT	CAAGTATTGG	AAGAAGAGAT	GAATCGTTAT	CAACCTGACT	TTGTCTTTTG	9180
TATTGGGCAA	GCTGGTGGAA	GAAC TAGTTT	GACACCTGAA	CGAGTGACCA	TTAATCAAGA	9240
CGATGCATGC	ATTTCTGATA	ACGAAGATAA	TCAACCGATT	GACCGTCCCA	TTGCGCCAGA	9300
TGGTGCTTCG	GCTTACTTTA	GTAGTTTGCC	GATTAAAGCG	ATGGTTCAAG	CTATAAAAAA	9360
AGAGGGCTTA	CCGGCCTCTG	TTTCCAATAC	GGCAGGGACT	TTTGCTTGCA	GCCATTGTAT	9420
GTATCAGGCT	CTCTATTGGG	TAGAAAAAGAA	ATCTCCATAT	GTTAAGGCAG	GTTTTATGCA	9480
TATTCCTTAT	ATGATGGAAC	AGGTGGTGAA	CAGACCGACT	ACTCCAGCTA	TGAGTTTAGT	9540
GGATATTCGG	CGAGGGATAG	AAGCAGCAAT	CGGCGCTATA	ATAGAACATG	GAGATCAGGA	9600
ACTCAAGTTG	GTAGGCGGAG	AAACTCATTG	ATAGAAAAAA	GCTTGAGGGG	AAAAACCTTC	9660
AAGCTTTTGG	ACGTTTTTCG	GCCAACTACT	CTCGGTAAAA	CATAAATTTA	GTGCATTGGA	9720
TATAAGGTAG	GAGTGAAAAA	CTAGCAATGC	CAAAGGTAAT	CCAATTGAGG	AAGTACCAAG	9780
GAAGAAGCTG	TAAATCTAGG	ACAAAGTGCT	GGAACTTGTA	GCCCTTCATA	AAGGAACGGC	9840
TAGTTTTTAG	GATTCGTCTT	GGTGGGACCT	GTCCTAGGTC	TAGACTATAA	CAGAGAAGAA	9900
ATTCACCTGT	TGAATAGGCA	TAATACTGTG	GAATATAGAG	GATATTTTCT	ACAATGATCA	9960
AGATGAGACT	TGCAAGAAAG	TAGAGTCCAA	AGACCATGAG	GAAACGCTCG	GTTTCAACTG	10020
ATGAGAGATC	TAGATTTGGA	AACTCAGGAT	GTAGGGTGAC	GAATTTTTTG	GCTAAAAAGC	10080
TACTATAAAA	GAGGAGGTAA	ATCCCAAGTA	AATTAGGGAT	ACTCCATAAA	AAGAGATAGA	10140
AACGTTTGAG	AAGTAGGGTC	AAAAAGGTTT	GAGAAAAAGC	CTCCTCATCA	AAGAGAGCTA	10200
GGCTGTTTTT	TACAGATGGC	TCCGTTTTAG	AATCTTTTAT	GAGTGTGAGT	GTTCATAGTA	10260
CGAATCTGTT	CAAAAAGATA	GTCCCGATAA	AGGAGACTAG	TAGAGGAJAG	AGGTAGGTTT	10320
GAAGTATTTG	GCCAAGTATG	CTGAAAAATG	GCTGTTCTAA	AACAGTCCCG	TGGATCCGAG	10380
ATAAGGGATT	AAGAAAACCA	GATAAGATGA	CCAGCATACT	GGGAAGGATA	TAGAGGAGAA	10440
AGAGACGGGG	GGTGTGAGCC	TGAAAAATGT	TTGACTCCTG	ACGAATTTGT	TTTAAATCAA	10500
TTTTTGATTA	GTTCATCTCT	TTATTAATAC	ATAGTCTCTA	TACATAGTTC	GTGACAGTTC	10560
CTACTTTTTT	TGATAAAAAT	ATACAGTGTG	TCCTTGGGCA	CAGTGTATGA	ACTGGGACTG	10620

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TCTTTCCAG CTTCGGAGGT AAAAAATGTC AGATTACCA ATCAAAATATC GTTTGATTA	10680
GAAAGAAAA CACACAGGAG CTCGTCTGGG AGAAATCATC ACTCCCCACG GTACCTTTCC	10740
GACACCTPAT TTTATGCCAG TTGGGACACA AGCCACTCTC AAAACTCAGT CACCTGAAGA	10800
ATTGAAGGAG ATGGGTTCCG GAATTTACCT ATCAAAACCC TATCATCTCT GGCTTCGCC	10860
TGGAGATGAA CTCATTGCAC CGCTGTGGT TCTCCACAAG TTCTATGAAT GGGACCGCC	10920
TATCTTGACA GATAATGGTG GTTTTCAGGT TTATTCTTTA GCAGATAGCC GTAATATCAC	10980
AGAAGAAGGA GTAACCTTTA AAAATCATCT AAATGGTTCT AAGATGTTCC TATCCCCAGA	11040
AAAAGCCATC TCTATTGAGA ATAATCTGGG TTCAGACATC ATGATGTCCT TTGATGAATG	11100
TCCTCAGTTT TATCAACCTT ATGACTACGT TAAGAAATCG ATCGAGCGTA CCAGXXGTTG	11160
GGCTGAGCGT GGTTTGAAGG CTCACCGTCG TCCACATGAC CAAGGTTTGT TTGAATTTG	11220
GCAAGTGCA CGATTTGAAG ACCTTCGCCG CCAATCAGCT CATGATCTTG TCAGCATGGA	11280
TTCTCTCAGC TACTCTATCG GTGGTTTGGC AGTGGGAGAA ACCCATGAAG AGATGAATGC	11340
GGCTCTGGAC TTACAACTC AACTGCTGCC TGAAAAATAA CCTCGTTATC TGATGGGTGT	11400
GGGAGCGCCA GATAGCTTGA TCGATGGGGT CATTCGTGGG GTGGATATGT TTGACTGTGT	11460
CTTACCAGCT CGAATTGCTC GTAACGGGAC TTGTATGACC AGTCAAGGAC GTTTGTGTGT	11520
GAAAAATGCC CAGTTTGCTG AGGACTTTAC GCCACTGGAT CCTGAGTGTG ATTGCTACAC	11580
ATGTAATAAC TATACAGCG CTTACCTTCG TCACCTGCTC AAGGCTGATG AAACCTTTGG	11640
TATCGCTTG ACTAGCTACC ACAATCTTTA CTTCTGTCTT AACCTGATGA AGCAAGTGGG	11700
ACAAGCCATC ATGGATGACA ATCTCTTGGG ATTCCGTGAG TATTTTGTGG AAAAAATATG	11760
CTATAATAAG TCAGGACGTA ATTCTTAAAA TGGAATTGAT ATAAAAAAT CCTAAGTTTT	11820
CTCTPAGGAT TTTTCTCTTT TTTTGTATAG AATAAAGGT ACAATGAAAG GAAGAATAAA	11880
CTGTATGCG CATTAAATGG TTTTCCTCGA TTAGG	11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9069 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA CAGTTCTATC GCTTCAAATT TTTTCTGGT TTGCAGATAT TCAAGAATCG	60
GGAGTPTTTC TATAGTATTC GGCAGATTTA TTACAGCCAA GCATCTCAAA ATATGGGACA	120

GCATCCCTCCA TCTTTTCTG GCTTCCTTG ACTCTACCTT GCTTGCTATC AAGGAGACCT	180
TCTGCCCCACA GATAACAAT TCGAAATAG GTCTCATTTT TCTGTAGAA ATGCTCTTCG	240
ATAACACGTT TAAATTAATA GGCATTGGTA AATTCTTCAC ACTCAATACT AGCTAAAAG	300
CCATTCAATA GTATAGTAGT AAAAAGGTTT CGATTGCCAG ACATTTCCAT TAGAAAAATCA	360
GATTTACGTA CCATTTCTCG TACATATCTA GTAAAAAGAG AAACAGATAA AAATGGAGAA	420
CTGACTGAAA ATAAATTGAG TTCATAGATT CCCAGATCT CGGTAGAAAA CAAATAATCA	480
TGAAGGACTT TCTTCCTC TGCTGTTAAG TCTACCCCTT CATCTATGCT CTTCAATATA	540
GACTTGATAA TAATGGCATT TAGAATATGT TTCTGTTTGT TGTGAGAAAT GGCATGCTTT	600
TATACTCCCT GCGATATAAG TCCTCAAGAG GTGCTATAAT CTTTGGTTCC AAGACATCTG	660
TAAATTCTTT TCTCAACTCA GAATCTGTAT CACTACTGAA ACCTCTTGCC AGAAAGAGGA	720
TCTCCTCCAC ACTGGCAGAT ATATTTTCCA GAGCAATAG AAACCTTTCC ACCGAAAGCT	780
CACTCTGACC TGTTCCTAAA CGGACAACA TAGACGGCGA AATTGTCTCT CGGTTGCTT	840
GTCTCAGTGA GATATTCTTT GACTCTCGTA ATTGTCTAAA GACTTTTCCA ATCTGCTCCA	900
TAGACTTCCC CTTGATTCGG TATTCTCTTC ATTTTATCAT ATTTTTCAGA AAATTCATCA	960
AAAACTTGCC AAATGTGAG AATTATGAGA AATAGAGGA TATTATCAC GTGGAGGGAC	1020
TGCTATGAGA GACGATATCA AATCAATGA CGTGCTTTG GCCTTGCAAG ACCAATTAT	1080
CGAAAACTA GAGAAAGTTT TTGATACAGA TGTGGAATTG GATGTTTACA ATCTAGGTCT	1140
GATTTATGAA ATCAATCTGG ATGAAACGGG GCTCTGCAAG ATTGTCATGA CCTTCACCGA	1200
TACTGCTGT GATTGGCCG AAAGCCTGCC TATTGAATC GTGGCAGGTC TGAACAAAT	1260
CGAGGATATC AAAGATATCA AGGTTGAAGT TACCCTGCTG CCTGCTTGA AATCACACG	1320
AATCAGTCGC TATGGCCGTA TTGCCCTTGG ACTACCACCT CGTTAAGCAG ACCAATCACT	1380
TTTAAAGATG AAAATCAAAG GGCAAACTAG AAAACTAGCC GCAGGTTGCT CAAAACACTG	1440
TTTTGAAGTT ATGGATAGAA CTGACGAAGT CAGCTCAAAA CACTGTTTTG AGGTTGTGGA	1500
TAGAACTGAC GAAGTCAGCT CAAAACACTG TTTTGAGGTT GTGGATAGAA CTGACGAAGT	1560
CAGCCCAAAA CACTGTTTTG AGGTTGTGGA TAGAACTGAC GAATCAGTA ACCATACCTA	1620
CGCAAGGCC ACGTTGAGCT GATTTGAAGA GATTTTCGAG TATGAGTTTA TTTTTCACCT	1680
GACTTGTCCA TATTCAGAA GTCTGTACAG GCTCCGCGTG AAGCAGATGA TACGATGTGG	1740
GCAATTTTAC CGAGGACACC ACGGCTGTAA AGTGGTGGCA AGGTTGTTTC TGCTTTCGCT	1800
TTTTCAAGTT CTCTCTCGA TACGGCCATA GAAATTTCTT TGGTATCTTG GTCAACCGTA	1860

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ACGATATGCG	CGGTACGAG	ATAGGCAATT	GGTCCACCAT	CCTGAGCTTC	AGGAGCGATA	1920
TGTCCAACAA	CCAGACCATA	AGTACCACCA	GAGAAACGT	CGTCCGTCAA	GAGGGCCACC	1980
TTATCTCCCT	GACCTTTACC	AACAATCATT	GAAGAAAGTG	ATAGCATCTC	AGGCATACCA	2040
GGACCACCTT	TAGGTCCAAC	AAAACGAACA	ACGACTACAT	CGCCATCAAC	GATTTTCATCT	2100
GTGAGAACGG	CCTGAATGCG	ATCTTCTTCT	GAGTCAAGA	CCTTAGCTGG	CCCAACGTGA	2160
CGACGCACTT	TAACACCTGA	TACCTTGCCA	ACTGCACCGT	CAGGAGCAAG	GTTCCTCGTTC	2220
AAGATGATAA	GCGGACCATC	CGCACGTTTT	GGATTTTCAA	GTGGCATGAT	AACTTTTTGG	2280
CCTGGAGTCA	AGTCTGCAAA	GTCAGCCAAG	TTTTTCAGCTA	CAGCTTTACC	AGTACATGTTG	2340
ATGGATCTCT	CCTGAAGGAA	ACCATTTGCG	AACAATACT	TCATAACCGC	AGGGACACCA	2400
CGACTTCTGT	AGAGGTCTTG	GAAGACATAC	TGACCAGATG	GTTTCAAGTC	GGCCAAAGTA	2460
GGCACACGTT	CTTGAATCGT	ATTGAAGTCC	TCAAGTGACA	AGTCAACATT	TGCGGCATGG	2520
GCAATGGCGA	GCAAGTGGAAG	AGTGGCGTTT	GTAGAACCAC	CGAGAGCCAT	CGTTACAGTG	2580
ATAGCATCTC	CAAGGCTTTC	ACGAGTCAAG	ATATCTGATG	GTTTGAGACC	AAGTTTCCAAC	2640
ATCTTAACAA	CAGCACGTC	TGCTGCTTCG	ATATCTTCTT	TCTTATCAGC	TGATTCAGCT	2700
GGGTGAGAGG	ATGACCTCG	CAAACTCATC	CCTAGAACTT	CGATAGCAGT	TGCCATGGTA	2760
TTAGCAGTAT	ACATACCACC	ACAAACACCA	GGGCCAGGGC	AGGCATTACA	TTCAAGACGT	2820
TTACAGTCTT	CAGCTGTCTC	GTCAACGTTG	TTCCATTTTC	CGATACCTTC	AAAGACAGAA	2880
ACCAAGTCGA	TATCTTTACC	ATCAAGATTT	CCCGGTGCAA	TAGTTCCACC	ATAGGCGAAA	2940
ATAGCTGGGA	TATCCATATT	AGCAATAGCA	ATCATAGATC	CAGGCATGTT	CTTGTCACAG	3000
CCACCGATAG	CGACGAAGCG	ATCCACGTTG	TGACCACTCA	TAGCGGCTTC	GATGGAGTCC	3060
GCGATGATGT	CACGAGATGT	TAGAGAGAAA	CGCATACCAG	GCGTTCCCAT	AGCGATCCCG	3120
TCCGCTACGG	TAATGGTTC	AAACTGTACA	GGCCAAGCGC	CTGCAGATTT	GACACCTTCT	3180
TTAGCAGATT	TCCCGAAATC	ATGCAAGTGA	ATGTTACATG	GTGTATTTTC	CGCCCAAGTC	3240
GAAATCACTC	CCACAATCGA	TGTTTCAAAG	TCCTTATCTG	TCATACAGT	CGCACGAAGC	3300
ATAGCACGGT	TAGGTGATTT	AACCATGCTG	TCATAAATGC	TACTGGCGGTG	ACGTTTATCT	3360
AATTGAGTCA	TCTTATCCCT	CCCATTTTCA	TTTTTACTAT	TATAGCACAA	TTTTTCGCATG	3420
AAGAACAGAA	TAAATTTCTT	GAATTTTTCAG	AAATTTCTAT	ACACATGTGA	AATATTTTAA	3480
ATTAAAAACA	ACAAAGCGGA	TTAGTGCATC	TTCTGATGAC	CAGAATATGC	TTTTTAATCC	3540
GCTTTCCTTA	AATAACGTAC	TGTAATTTTT	ACAGAAATTC	TTTCAATAAA	GTGTATTTAA	3600
CATCTATCTT	GCAATATAAA	TTTCTAGAAC	CTTCTCTTTT	ATATTGATTT	CACCTCAAAC	3660

ATACTCATTA AGAAGATAAT CCAATTTCCC TACTTGACCG AATCTTTCTT GAACACCCAT	3720
CCGATGAATT TTGTTATTTC CATCATCAGA GAATAATTCA CATAAAGCAC TGCCAAATGCC	3780
ACCTATCTGA TTGTGTTTTT CTACAGTAAA TATAGTTTTT CCACTTAACA TTGTTTTTAT	3840
CTGTCTCTGT ATCGGTTTGA TCTAAATAA ATCTATCACA CCTACTGAAT AACCTAAATT	3900
AGACAGTTCA TCTGCAACTC GAATACCTTG AGCAACCAAT ATGCCAGAAG CAACGATTAC	3960
AAGATCTTCA CCATGCCCTA ACTCAATGTA GCCTTTAGAA AAATCTTCTC CACCTTGATA	4020
CACAGAACT GGAGCTTTTC TAATTGTTTC AATATATTTT AGTCCTTTTA AGTCTAATGT	4080
CTGGTTCAAT ATTTCACGAA ATTGGATATC ATCAGTTGCT TCGAAAAAGA TTGATTTAGG	4140
AATTAACGT AACAAATCAA TTCTCTCAA TGGCATATGT GTTCACCAAT TCATCTCTGC	4200
CGTTACTCTT GCATCTGATC CAAACACAGT GGCATCCAAT TGTGCGTATC CAAGAGAAAT	4260
AAATAATTGA TCAATACTC TTCTGGAAGC AAAAGGACCA AATGATGAA GATAAGTCT	4320
AAACCCCTGA ATAGACAAGC CTGCTGCAAG GCCGACCATT TCTGCTTCCA TAATCCCAAC	4380
ATTCACATAA CGGTCTCCAA AGTCCTTTTC AAGATTATTA GTAGCCATCG AACTTGACAA	4440
ATCGGCTTCT AAGACTACTA TATCAGAATC ACTTTGATTA GCCTCTAAA GGAAGTCTCT	4500
ATATACATGC CGTAATTCTT TCGTACTTCT CATCATCTGT TTTCCTCCAA TTCTGACTT	4560
AATCTTTCTA CAACTGAAGT TAACATTTGT TTCTCCTCTA CAGTAGGGCG AAGATGATGA	4620
TTGGATTCTA TTCTTCCAG CTCTTGAACC CCTTGACCTT TAATAGTATC TAATACAATG	4680
CACTTAGGTG ATGAATTATT TGACTGTTTT AATTGGACAA TCCCTTCATA AATTTCTCTA	4740
ATATCTGAAC CCTTGACCCT AATGGATTCA AATCCAAATG CTGAAAAATT TTCTACGAAA	4800
TCACCTGGAT TACAATATAT CTTTGTAAAA CCATCTAATT GTTTTITGTT ATCATCAACA	4860
AATACAATTA AGTTGGATAA CTGTTGATGA GAAGCAAACT GTATAGCCTC CCAACATTGT	4920
CCCTCATTTA ACTCACCATC TCCAACAATA GCGTAAGTAT AAAAGGGACT CTTTCTTATT	4980
CTCTGACCAT ATGCAAGTCC AGTTGCAACA CTAATTCCTT GTCTTAAAGA GCCCGTTGTC	5040
ATATCTATGC CTGGCGTTAG ATTTCTATCA GGATGAGACG GTAATTGGT TCCATTGTGA	5100
TTTAAAGAA ATAGAATTC TTGTCAAAG AAACCATTCA AATAGAGTGT ACTGTATAGA	5160
CTGTGCTCTC CGTGACCTTT TGAATAATG AAATAATCTC TATCTCGTGC TGCAAAATAT	5220
TCTGAGATCA TTGGCAATT TPCACCATAA AGCACCGCTA AAATCTTAC GATAGACAGA	5280
CTTCTCCCG AATGTCOGAA TCCAAGATGA TTCAATGTTT TAAGATATT TAATCGATG	5340
TTAGTCGCAA ATTTTCTTAA CCAATCTTCT CTATTTTAC TTAATAATCAT CCGTTATGCC	5400

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TCCGTTGCAG ATGGCTTTT AATAAAGGAT ACTCCAAACA TAACTGCTAG AATAAGAACA	5460
AGACCAATCA CAATGCTCTG TTGTGAGCCA AATTGATTTA ACATTCTTAA AATAATTCTT	5520
GATAGACCAA AATCTGCATC TGAGAAAGTT GATCCTTGG AACCAGATCC TCCCAAAACT	5580
GGCATTAAAA AGACTGGAAG AAAACTGATT AAAATACCTT GTAAAAATGC TCCAAATAGT	5640
GCTTCACGAA CACCACGA TGCAATCCCA ATGACACCTG CAGTCGCTCC ACAGAAGAAA	5700
TGAGGCACAA CACCTGGTAA GATAACAACC GTTCCTGAAG CAATCATAAT TACCATACTT	5760
ACTAAACCAC CAACAAAAC AGAGATAAAT CCAATTAGAA CTGCATTGGG TGCATAAGTA	5820
TAAACAATCG GACAATCCAA AGCAGGTTTT GAATTAGGTA CAAGACGCTC TGAATAACCT	5880
TTAAAGGCTG GAACAATTC GCCCAAAATA AGCGAACAC CTGCTAAAAT AACAAATACC	5940
CCTGCTGCAA ATTGACCTGC TAATTGTAAA GCATAAACTA GACCACCTGT ACCACTACTG	6000
ATTCTTTTTT CTATATATTC TGACCTTGCA AAGATAGCTA CAATAATGTA AATAACTGCC	6060
ATGATAAAG TAATACTAAC AGTACTATCA CGTAAAAAG CTAAACTCTT TGGAAATTTA	6120
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TATCCCAAG AACTGAAATG ACCTAAAGCT ACCTTGTCAT TTCCAGTTAA TTGAACCATA	6240
TATTTTTCGA CAAATGCTGG GGAATACTC ATAATAATAC CGAGTGCTAA TCCTCTTAGT	6300
AAGATGAGAG GCAAGCTAGT AAAGCCAGCA ACTGATAAAA TGACCGCAAT CATACATGCC	6360
ATATATAGAG TGTGTGCCC TGTAAAAAA ATATATTAA ATCGAGTAAA ACGAGCGATT	6420
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AAAGCTACAG CTACAAATGC TTCAATTTC GGCACAAACG CAGATAAATG AAAAGCATGC	6540
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ACTAAGAAAC CAACAAAGT CTTAATTCCA CTTTAAATA TATCAGGTAA TTCTCTTTC	6660
TGAAGAACTA ATCTTAAGAT TGCAATTAAA GCTACTAAAA TAGCTGGTGT ACTAACATA	6720
TCCAATATGA ACTTCATCAT GACGCTAGCC TCCTATATAA GTCCITTTTC TTCACAAAT	6780
TTAGTAATTA ATTCTCGTAG TTCATCCATA TCAATAATAC TATTTAAGAT ACGAACATCT	6840
CCAAGATTGAC TAGTGAATC AGCTAGATCA CGACCAACAA TCCAATATC AGCTGCATTT	6900
GGATCTGCTC CACCTAAATC ATAAATGTCA ACTTCTACAT CCGAAACATT CAATCACTC	6960
AATACAGATT CAATATCAT CTGTACCATA AAACITGAAC CTAATCCTGA ACCACAAGCT	7020
GTACCAATTT TTAACATTAT CTAATCCTCC TGTTTAATTA TCATTTTAAT GTCATCATAG	7080
TTTTTTGATG ATATTAAAGT TTGAACATGA TTTTATCTC TFAAAATTGT TGTAAATGT	7140
GACAAAGCCT TTAATGACT CTCATTATCA ATGGCTGCAA TACAAATCAA CAATCTTACC	7200

TCCTGTTCTG	GATTATCCAA	TAAATAAATC	GGTTCCTCCA	AAACTAACAT	TGACATTCCT	7260
ATTTCAATCA	CACCTTCATC	TGGCCGAGCG	TGAGGAATTC	CTACTCCCTT	CCCTAAATTA	7320
ATAAAAGTTC	CAAACTCTTC	TACTTTTGA	ATCATTCGCT	CAGGCTAGTT	CTCAGTTATC	7380
TTATCTTGAT	CCAAAAGCGG	TTTAGCTGCT	AAACGAATCG	CCTCCTTCCA	TCCTAATTTT	7440
TCCGAACATA	CCTGATAGGT	TTCTTTGGTA	ATAAGTTGTT	CTAGCACTGG	TACAATTTCC	7500
TTTCTATCAT	TTTTTTGGTA	AAGATAATTC	TTTAACGCCA	ATCTTAATTC	CANITCTTGT	7560
GTAATAATTC	CATATCTTTT	GACAATATTC	AGGATTTGTT	CAATCTCAAA	ATCTCCATAC	7620
TCTAAATTCG	GAAATCTTTT	TAACACTAGT	TCTACTAGTT	GTATTGCTTG	CTCTTCAGTC	7680
ATCATATACCG	AAACTAGATA	ATTTGGCTTT	TCTGTCTCCA	CCTTTATGGT	AGAAAAAAC	7740
ATATCATAGT	CACTACTAGC	TTTCACCTGT	AAATCATCAA	TCTTTGAGGT	TCCTATAAAC	7800
TCAATTTGAG	GAAATAATGC	TAATAGATTC	TCTTTTAACA	TCAATGAAGA	ACTAACACCA	7860
TTAGGACAAA	TGATTGCTGC	TTTATACCAT	TTTTGAGGCA	AAGTATCTGC	TTTCTTTAAA	7920
TAACCTCCGA	AATGGATAAC	AAAATATGCT	GTTCACATAT	CAGGTATGGG	ATTGTCAATA	7980
GGTCCCATCA	AGGGCATCAA	AGAACTCTTG	ACTAATTCAA	ATAAATCAGG	ATAATGTTCT	8040
TTAACAATCA	ATACATATTC	ATTTGAACTA	GGTAGGCCGA	ACTTTAATCT	ATAGTAAGCC	8100
GGTATAAGTC	GGCGGCGAAG	ATTTTCTCTC	AATCCTTCCC	TTTGTTTAAA	ATGTAACAAA	8160
GAAATATCTT	CCATTCTACT	TATAATAGCC	TCTGTTAATT	GATTAAAGTA	AACCGAGACA	8220
ACATCTACTT	CACCTTCAAA	GCAACTTGAT	AATAAAACGG	TGATATAGCG	ATAATCATCC	8280
TCAGAAAJCA	CCGTATCTAT	AATTTCCAAA	TCAACCACTG	TATCCAATAA	AATAGTGGTT	8340
ATATCTTGAA	TAACAGGAGA	TACTAATGTC	TCTGAAAGAC	ATACTCTTTC	AACATCCCCT	8400
TGATACCTAC	ACAGAATGAA	TACTAAACCG	AAAGGTAA	CTTTTAATTG	ATTAAACAATA	8460
GGTACTAGCT	GTAGCTTCTC	ATAATAATCT	TTAAGTACCT	GATCAATCAA	ATCATAAGTT	8520
AATGAATAC	CCCAACTGGA	TAAACATAAA	TCCAAACCCC	AAATCCCTAT	GGAGGATTTCC	8580
AGCAACTCAC	TAACCATTTG	AAAAGCTAAG	CGGTGCTTAT	TCCACTCTGA	ACCGTGTAAA	8640
GTATPAACTT	TTGCTCTACT	GTACCTTAGC	TCCAAATCAT	TATCTAACAT	AATCTTTCTT	8700
AATGATTGAA	TATCAGATAA	GGTTGTATTC	TTACTTACTT	TCAAAAAGTC	TTGGTAATGA	8760
CTATTTCGATA	TAAATCTTAA	TCGGCAAAAA	GTGTAAAGAT	AGATTAAAGC	TAAGCGAGTC	8820
GACTTTTGTA	AAACCAATTC	ATCCGACTTA	ATAATATCTG	TCAAAAGACTG	CTTCGTACGA	8880
TTTGATAAAC	TATAGCGACC	TTGCTTTTGA	TCCAGCACTA	TCCCTTTATT	AGCTAGATAA	8940

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GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT 9000
 AATTCAATATA ACGTAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGTCTTA 9060
 TAATCAAAC 9069

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8654 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCC TATCGTTGT GCGCTTGCA AGTGTAGCAC 60
 TTCTTCGAGC CTGTGGAGAA GTGAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG 120
 AGGAAAGAAC AATTAATATC GGTTTAACT TTGAAGAACT AGGTTCTTTA GCTGCATAGC 180
 GAACAGCTGA ACAAJAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAATGGTAT 240
 CGATGGA AAA CAJATCGAAG TAGTCGATAA AGATAATAAG TCTGAACAG CTGAGGCTGC 300
 TTCAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC 360
 ATCTGGTGGC ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC 420
 ACCAAGTGCG ACTCAAGATG GATTGACTAA AGSTCAAGAT TACCTCTTTA TTGGAACCTT 480
 CCAAGTAGC TTCCAAGGAA AAATTATCTC AAACATATGT TCTGAAAAAT TAAATGCTAA 540
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 CCGGAGTCA TACAAGGCTG AAATCGTTGC AGATGAACT TTCTGAGCAG GTGACACAGA 660
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 AGCATCAJAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAATTT CAGCTAAAGC 900
 TAAAGCCTTC CTGACGCTTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTGCAGC 960
 CTGTGCTTAT GATTCACTC ACCTGTGAGC AAACGACGA AAAGGTGCTA AAAATTTCAAG 1020
 TGAATCAAG AATAACCTTG CTAAAAACAA AGATTTTGAA GGTGTAACTG GTCJAJACAG 1080
 CTTCGATGCA GACCAJAJCA CAGTCAJAJC TGCTTACATG ATGACCATGA ACAATGGTAA 1140
 AGTTGAAGCA GCGAAGTTTG TAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC 1200
 TTGACTCAC TCCTGTGTTT GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA 1260

ACGTGCGCTT	GGATTATATA	TGTGACTGAC	TTCTGTACGTC	TTATCTACAA	CCTCAAAGCA	1320
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GAACCTATCA	AAAGTGAGG	GAAGAACCTC	GGAAATTATA	ATAGAAAGAG	TGAATCTTAT	1440
GCTCCAAACA	CTCGTAAATG	GTTTGATTCT	AGGTAGTGT	TACGCGCTGT	TAGCCCTAGG	1500
ATATACCATG	GTTTACGGAA	TTATCAAGCT	CATCACTTC	GCCCATGGTG	ATATTTATAT	1560
GATGGGAGCC	TTTATCGGT	ATTCTTGTAT	CAATCTCTTC	CAAAATGAAT	TCTTTGTAGC	1620
GCTTATGTGA	GCTATGCTAG	CGACAGCTAT	TCTTGGTGTG	GTGATTGAGT	TTCTTGCTTA	1680
CGACCTTTG	CGCCACTCTA	CTCGTATTGC	TGTTTGTGATT	ACGGCTATTG	GGGTTCCTTT	1740
CCTATTGGAG	TATGGAATGG	TCTATCTGGT	TGCTGCAAT	ACCCGTGCCT	TCCTCAAGC	1800
GATTCAAACA	GTTCGATATG	ATTGGGACC	AMTTAGCTTA	ACAAATGTGC	AGTTAATGAT	1860
TTTGGCCATT	TCTTGTATT	TGATGATT	GTACAAATG	ATTGTCCAAA	AGACTAAGAT	1920
GGGAAAGCC	ATGCTGCGAG	TATCAGTAGA	TAGCGACGCG	GCGCAATTGA	TGGGATCAA	1980
TGTAAACCGT	ACGATTAGCT	TTACCTTGGC	TTTGGGTCT	GCTCTGCGG	GTGCGGCTGG	2040
TGTTCTGATT	GCTCTTTATT	ATAACTCTCT	TGAGCCCTTG	ATGGGGCTTA	CTCCAGGTCT	2100
TAAATCTTTC	GTTCGCGCAG	TACTTGGTGG	TATCGGAATT	ATTCTCGGTG	CGGCTCTTGG	2160
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TGATGCCATT	GTATTGGA	TCTTGTGT	GATCTTGATT	GTCCGCCAG	CTGGTATCCT	2280
TGTTAAGAA	GTGAAGAGA	AGGTGTAAAC	GATGAAGGAA	AATTTAAAG	TTAATATTCT	2340
ATGTTTACTC	CTTTTGTAG	CTGGCTATAG	CTTGATTAGT	GTACTGTTTT	CAGTCGGAGT	2400
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CTTTGGAGCT	ATGCTTTGTAG	GGCTTTGTCT	TTCAGGAGCA	GTTCCTTAC	TTGTGGCAT	2640
TCCAACCTTG	CGCTTGAAGG	GGGACTATCT	TGCGGTAGCA	ACTCTGGGTG	TTTCTGAAAT	2700
TATCGGTATC	TTTATCATCA	ATGGTGAAG	CCTTACAAT	GGTGCGGCGAG	GTATCTTAGG	2760
GATTCTTAAC	TTTACAACCT	GGCAATGGT	TACTTCTTT	GTCTGATTTA	CAACCATTCG	2820
AACTTGAAC	TTCTTGGCTA	GCCCAATTGG	TGCTTCAACC	CTCTCTGTTG	GTGAAGATGA	2880
AATCGCTGCT	GAGTCAGTTG	GGTTAATAC	GACTAAATTT	AAATCATCG	CTTTGTCTTT	2940
TGGTGCCATT	ACTGCAAGTA	TTGCTGGGTC	ACTTCAGGCA	GGATTTATCG	GCTCTGTTCT	3000

ACCGAAGAT TACACCTCA TCAACTCAAT CAACGTTTGG ATTATTGGTG TATTTGGTGG	3060
ACTCGGTTCC ATTACAGGTG CGATTGTTTC GGTATTGTT CTGGGAATTT TGAATATGCT	3120
TCTCCAAGAT GTTGCTAGTG TCGGTATGAT TATTACGCT TTGGCCTGG TATTTGGTAAT	3180
GATTTTCAGA CCAGGTGGAC TCCTTGGAACT ATGGGAACAT AGCCTATCAC GTTCTCTTAA	3240
AAAATCTAAG AAGGAGGAC AAAACTAATG GCATTACTTG AAGTAAACA GTTAACCAAA	3300
CATTTTGGTG GTCTAACAGC TGTGGAGAT GTGACTCTTG AATTGAACGA AGGGGAACATG	3360
GTGGAGTAA TCGGTCCAAA CGGAGCTGGG AAAACACCC TTTCACACCT TTTGACCGGT	3420
GTATTATGAC CAAGCGAGG AACAGTAACC CTAGATGGTC ACCTTTTGAA TGGGAAATCA	3480
CCTTATAAGA TTGCCTCTTT GGGACTTGA GGTACTTTCC AAAATATCCG TCTCTTAA	3540
GATTTAACAG TTTTAGATAA TGTTTGATG GCTTTTGGAA ACCATCACAA ACAGCATGTT	3600
TTTACTAGTT TCTTACGCTT ACCAGCTTTT TACAAGATG AAAAAGAATT AAAGCTAAA	3660
GCTTTGGAAT TGTGAAAT CTTTGATTTA TGTGTGATG CAGAGACTCT TGCTAAAAAT	3720
CTTCTCTACG GACAAACAG TCGTTTGGAA ATTGTCTGT CCCTTGTCTC GGAACCTAAA	3780
ATTCTCTCT TAGATGAACC AGCAGCAGGT ATGAACCCAC AGGAACACGC CGAATTGACT	3840
GAGTTAATTC GTCGTATCAA AGATGAGTTT AAGATTACAA TCATGTTGAT TGAACACGAT	3900
ATGAATCTGG TCAATGAAGT AACAGAACGT ATCTACGTAC TTGAATATGG CCGTTTAATC	3960
GCTCAAGGAA CTCGACAGCA AATTAAGACC AATAAACGCG TTATCGAAGC TTATCTAGGA	4020
GGTGAAGCGT AATGCTATG TTTAAAGTTG AAAATCTTTC TGTGCATTAC GGATGATCC	4080
AAGCAGTTCG TGATGAAGC TTTGAAGTTA ATGAAGGAGA AGTTGTTTCC CTATCGGTG	4140
CCAACGCTGC AGGTAAAGCA ACTATCTTTC GCACCTTGTG AGGTTTGGTT CGACCAAGTT	4200
CAGGAAGAT TGAATTTTTA GGTCAAGAAA TCCAAAAAAT GCCAGCTCAG AAATCGTGG	4260
CAAGTGCTCT TCACAAAGTT CCAGAAGGAC GCCAGCTCTT TCCTGGCTTG ACTGTTATGG	4320
AAAATCTTGA AATGGGAGCT TTCTTAAAGA AAAATCGTGA AGAATAACAA GCTAACTTGA	4380
AGAAGGTTTT CTCACGCTTT CCTCGTCTTG AAGAAGGAA GAACCAAGAT GCAGCCACTC	4440
TTTCAGGGGG GGAACAACAA ATGCTTGCCA TGGGACCGGC CCTCATGTCA ACACCAAAAC	4500
TTCTTCTTTT AGATGAACCA TCAATGGGAC TTGCCCAAT CTCTATCCAA GAAATTTTGG	4560
ATATCATTTA AGATATTCAG AAGCAAGGAA CAACGGTCTT CTGATTGAA CAAATGCCA	4620
ATAAGCACT TGCAATCTCT GACCGAGGAT ATGTACTGGA AACAGGAGA ATCGTCTAT	4680
CAGGAACAGG AAAAGACTC GCTTCATCAG AAGAAGTCAG AAAAGCATAT CTAGGTGGCT	4740
AAAACAATCC AGTGGATTGT TTTAGTCGGC AGATGGAGAT TACGAAGTAA TCATCAATAT	4800

AGTCCGGGG	ACCTTTT	TCGCTAGATT	GAGATTGCAA	ACAAATCTGC	ATCTACATTG	4860
AAAGCTTAAT	TTCTAATAAT	TGAAAAATC	GAATGAAAA	TTCTTTACCT	TCATTCACAG	4920
AGCTCGAATT	CAGAGCTCTT	TTTGCTAGCT	TATTCATACT	TTCTGAATT	TCGAAAAAGA	4980
AATGTAAAGC	TTTGATAGAT	TTACAAAAAG	ATTGTATAAT	AGGGATAAGA	ATAGAAAAGG	5040
AGAAGTCTCA	TGGCAGTTAA	AGATTTTATG	ACCGCAAGG	TAGTTTATAT	TAGTCCAGAT	5100
ATAACAGTAT	CTCATGCAGC	AGATTTGATG	AGAGAGCAAG	GTTCGCACCG	TCTGCCTGTT	5160
ATCGAAATG	ATCAATTAGT	TGGTTTGGTG	ACTGAGGGAA	CCATTGCACA	AGCAAGTCCA	5220
TCTAAAGCAA	CAAGTCTTTC	TATCTATGAG	ATGAATTATC	TTCTGAATAA	GACAAAAGTA	5280
AAAGATGTCA	TGATTCGCGA	TGTTGTCACT	GTCTCAGGCT	ATGCTAGTCT	AGAAGATGCA	5340
ACTTATCTGA	TGTTGAAAAA	TAAGATTAGT	ATTCTCCCTG	TCGTAGATAA	CCATCAAGTA	5400
TACGAGTFTA	TFACTGACCG	TGACGTTTTC	CAAGCCTTTC	TTGAAATTGC	AGGTTATGGC	5460
GAAGTAGGGA	TTCTGTACG	CTTTGTTACA	GAAGATGAAG	TTGGTGTCT	TGGAATAATT	5520
GTTTCTTTGA	TTGTAGAAGA	AAATTGAAT	ATCTCCCAT	CAGTCAATAT	TCCCGCTAAG	5580
GATGGTAAGG	TGATTATCGA	AGTGCAAAATC	GATGGATCAA	TTGATTTACC	AGCCTTGAAA	5640
GAAAAATTG	AAGCAAAATG	TATTCAAATG	GAAGAAATCG	CTCGCACTTC	AGCAAAAGTC	5700
TTGTAAGAAG	GGAGCCCAA	AGGCTTCTTT	TTTCATGAAA	AGGGGATTAG	AGCAAAAGAT	5760
GGAAAGAAAT	GATAAAAATAT	GCTATAATGA	AATAATGTAA	AAAAGGAGTA	TTTATGGACA	5820
TTTCAGTAAT	TCGTGAGAAA	ATTGACGCAA	ATCGTGAAAA	ATTAGCTTCT	TTCAGGGGGT	5880
CTCTTTGACC	TCGAAGGGCT	AGAGGAAGAG	ATTGCCATCT	TGGAATAACAA	GATGACAGAA	5940
CCTGATTTTT	GGAAAGATAA	TATTGCGGCC	CAAAAACGT	CGCAAGAAAT	AAATGAATTA	6000
AAAAACACTT	ACAAATACCT	CCATAAGATG	GAAGAGTTGC	AGGATGAAGT	CGAAATTTTA	6060
TTGGATTTTT	TGCTGAAGA	CGAGTCAGTG	CATGATGAAC	TGGTAGCGCA	GTTAGCCGAA	6120
CTTGATAAGA	TAAAGACCAG	CTACGAGATG	ACTCTACTCT	TGTCAGAAAC	TTATGACCAC	6180
AACAATGCCA	TCTTGGAAAT	CCATCCAGGT	TCTGGTGGTA	CTGAGGCCCA	GGACTGGGGT	6240
GATATGTTGC	TTCTGATGTA	TACTCGTTAT	GGTAATGCTA	AAGGCTTTAA	AGTGGAAAGT	6300
TTGGATTACC	AAGCAGGTGA	TGAGGCTGGT	ATTAAATCGG	TAACTTTTAT	ATTGGAAGGG	6360
CCTAATGCC	ATGGCTCTCT	CAAGTCAGAA	ATGGGTGTT	ACCGCTTAGT	GCGAATCTCA	6420
CCATTTGACT	TCGCCAAAGC	TCGCCATACC	TCTTTCACAT	CTGTAGAAGT	GATGCCAGAA	6480
TTGGATGATA	CTATTGAAGT	GGAAATCCGT	GAAGATGATA	TCAAGATGGA	TACCTTCGGT	6540

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TCAGGTGGTG	CCGCTGGACA	AAACGTCAAT	AAGGTTTCAA	CAGGTGTACG	TTTAAACCAC	6600
ATTCCAAC TG	GAATTCTGTG	CCAATCAACA	GTAGATCGTA	CCCAGTATGG	AAATAGAGAT	6660
CGTGCCATGA	AGATGTTGCA	GGCTAAGCTC	TATCAATGG	AGCAAGATAA	GAAGGCTGCG	6720
GAGGTAGATT	CTCTCAAAGG	TGAGAAAAG	GAGATCACTT	GGGGAAGCCA	AATCCGTTCT	6780
TATGTCTTCA	CGCCTTATAC	TATGGTAAAA	GATCACGAA	CTAGCTTTGA	GGTGTGCTCAG	6840
GTAGATAAGG	TTATGGATGG	GGACCTAGAT	GTTTATATCG	ATGCTTATCT	CAAGTGGCGA	6900
ATTAGCTAAG	ATAGAAAGGA	ACTCACATGT	CAATTATTGA	AATGAGAGAT	GTCTGTAAAA	6960
AATACGACAA	CGGAACAACT	GCTCTACGGG	GTGTTTCGGT	TAGCGTTCAA	CCGGGGGAAT	7020
TTGCTTACAT	CGTAGGACCT	TCAGGAGCAG	GGAGTCAAC	TTTTATTGCT	TCTCTGTATC	7080
GTGAAGTAAA	AATCGATAAA	GGAAGCCTAT	CAGTTGCTGG	TTTTAATCTG	GTTAAGATCA	7140
AAAAGAAAGA	TGTCCCGCTT	CTACGTCGTA	GTGTTGGGGT	TGCTTCCAG	GATTATAAAT	7200
TGTTACCAAA	GAAACTGTCT	TATGAAAATA	TTGCTTACGC	TATGGAAGTA	ATCGGGGAAA	7260
ATCGCCCTAA	TATCAAAAGA	CGAGTGATGG	AAGTTTGGGA	CTTGGTTGGA	TTGAAGCATA	7320
AGGTTCTGTC	TTTCCCAAAT	GAACCTCTCAG	GTGGGGAGCA	ACAGCGGATT	GCGATTGCGC	7380
GTGCAATTGT	AAATAATCCC	AAAGTATTGA	TAGCTGATGA	GCCAACAGGA	AATCTGGATC	7440
CGGATAATTCT	ATGGGAAATT	ATGAATCTCT	TGGAACGGAT	TAACYTACAA	GGAAACACTA	7500
TTTTGATGGC	GACTCATAAT	AGCCAGATTG	TAAATACCTT	GCGCCACCGT	GTCAATTGCCA	7560
TTGAAAATGG	CCGTGTCGTT	CGTGACGAAT	CAAAAAGAGA	GTATGGATAC	GATGATTAGT	7620
AGATTTTTTC	GCCATTATT	TGAAGCCTTA	AAAAGTTTGA	AACGAAATGG	TTGGATGACA	7680
GTAGCTGCTG	TCAGTTCAGT	CATGATTAAT	TTGACCTTGG	TGGCAATATT	TGCATCTGTT	7740
ATTTCATAA	CAGCGAAACT	AGCTACAGAT	ATTGAAAATA	ATGTCCTGTG	AGTAGTTTAT	7800
ATCCGAAAGG	ATGTGGAAGA	TAATAGTCAG	ACAATTGAAA	AAGAAAGTCA	AATCTGTACA	7860
AATTAATGACT	ACCACAAGGT	ATATGATTCT	TTGAAGAACA	TGCTACGGT	TAAAAGTGTT	7920
ACCTTTTCAA	GTAAGAAGA	ACAATAAGAA	AAATTAAACG	AGATAATGGG	AGATAACTGG	7980
AAAATCTTTG	AAGGAGATGC	CAATCTCTCT	TATGATGCGT	ATATTGTGTA	GGCAACACT	8040
CCAAATGATG	TAAAACTAT	AGCCGAAGAT	GCTAAAAAAA	TTGAAGGTGT	CTCTGAGGTT	8100
CAAGATGGCG	GTGCCAATAC	AGAAAGACTC	TTCAAGTTAG	CTTCAITTTAT	CCGTGTTTGG	8160
GGACTAGGGA	TTGCTGCTTT	GTTAATTTTT	ATCGCAGTTT	TCTTGATTTC	AAATACCATT	8220
CGTATTACCA	TTATTTTCCG	CAGTCGCGAA	ATTCAAATCA	TGCGCTTGGT	CGGAGCTAAA	8280
AACAGTTATA	TCCGTGGACC	GTTCTTGTTA	GAAGGAGCCT	TTATCGGTTT	ATTGGGAGCT	8340

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ATCGCACCAT CTGTTTGGG CTITATGTT TATCAAAATG TTTACCAATC TGTCACAAAA	8400
TGCTTGGTAG GGC AAAATCT ATCCATGATT AGTCCAGATT TATTAGTCC GTTGATGATT	8460
GCCCTACTAT TTGTGATTGG GGTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCGC	8520
CGATCTCTGA AGATTAGGT AAAATAGCTG CTTTTATGAG GAGATTGTAA AATCCTCTTT	8580
TTTGCTACAA GAGTTTTTGA AAAGAGATGC GCAGAAGAAA AGAGCTTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTC	8654

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19718 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTCGCTTTC AAATTTCTAG GCTCAGGCTG AAACAGTCTC CCAGGCTGTT CACTCCGAA	120
TGCTAAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTTAGCCGTG CTATGAGTCG	180
TGTGCTATGC CAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GCGCTACTGG AAATCATTC AACAGGATAG CCGTAAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAATTCCTT GACAAGATTT TAAGCTATTC	360
AGAAGACTTG AAACACCACT ATCAGATCTA TCAACTCTTA CTTTTCCTT TCCAGAACAA	420
AGACCCGTAG AAATTTTTTC GACTCATTTA GGACAATCTG AAGCAGGTTT ATCCTCTTTT	480
TCAGACTGTC TTTAAACCTT TTCTCAAAGA TAAGAAAAG ATTATCAACG CCCTTCMACT	540
ACACTATTCT AATGCCAAAC TGGAAAGGAC CAATAATCTC ATCAAACCTA TCAAGCGCAA	600
TGCCTTTGTT TTTCGAACT TTGAAAACCT CAAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAAGAA AGGACGAAAT TTGCTCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTTC CATAAAAATT GACATGGAAA TTATAAAACC ATTACTAGTT	780
TACTCCTTTT TGATAACGTG CCAATTGCGC TTGGTTCGCC CAAACATAGT GACCTGGAGC	840
GATTTCATCC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGACTTGGAT CGTAAACCTT	900
CAAGACCTTC TTACGTTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTTPAAACA TTCTTCTGTT TCTGCAACCT CTACAATAAC	1020

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ACCCCTTGTA	ATAACTGCGA	TACGATCTGA	AATAAGCGA	ACAACCGACA	AGTCATGGGC	1080
GATGAAGAGA	TAGGTCAGGC	CGAGCTCTTT	TTGGAATTTT	TTGAGCAAGT	TCAGACTTTG	1140
GGCAOGTACA	GAAACGTCCA	AGGCTGAAAT	TGGCTCATCT	GCAATAACAA	AGTCTGGTTG	1200
CATGACCAAG	GCACGGCAA	TACCGATACG	TTGACGTTGA	CCGCTGAGA	ATTCATGAGG	1260
GTAAGGAGTC	AAGTGCTCAG	CAAGAAGACC	TACTTTACGG	ATAATATTTT	GAACCTTCTC	1320
TTTACGTTCT	TCTTCATCCT	TAAATAAAGC	GTGATTGTAA	AGACCTTCAG	AATAATATA	1380
ATCAACAGTC	GCACGTTTAT	TCAAACTTGC	GGCAGGCTCT	TGGAAAATCA	TCTGGATTGG	1440
ACGAATCAAT	TCCGCAGCTT	GTTCACGCGA	TTTCTTACCA	TTAATCTTTT	GACCATCAAA	1500
AATGATATCT	CCATTACTTG	TATCATTTAG	ACCGATGATA	GCACGACCAA	TAGTTGTTTT	1560
CCCACTACCG	GACTCACCTA	CAAGCGAGAA	AGTTTCTCCC	TTGTGATATA	AGAAAGTTAGC	1620
ATTTTTAAAC	GGCAAAACT	TCTTACTTCC	TTCAACGAAG	GAAATTTCTA	AATCTTTGAT	1680
TTCTACTAAT	TTTTACAGCA	TTTCTCTCCT	CCTAGTCAGC	CAGATGGGCA	AATCCCATTT	1740
TTTACAGGAT	CTTATCATGG	AGATTTCGAA	TCACAGCTGG	TTTTTCTACT	TTGCGAGCAT	1800
CCTCATGAAG	AAGCCAAAGT	TTAGCCCAAT	GTGTCTCTGA	TACTGAGAAAT	TGAGGAGCTT	1860
TTTGTTCGAA	GTCAATCTGC	ATTGCGTAGT	CAGAACGCAA	GGCAAAAGCA	TCCCTTTTCA	1920
GGTCAATATA	AAGTGACGGA	GGTGTTCCTG	GGATTGAGTA	AAGATCCCTT	TTATCATCAG	1980
CAAGCTGAGG	CAAGCTAGAC	AAGAGACTCC	ATGTATATGG	ATGGCGAGGG	TCATAGAAGA	2040
CTTCTCTAAC	CGTCCATAC	TCAACGATTT	CTCTGCATA	CATAACCGCT	ACCTTATCCG	2100
CAATACTTGC	CACGACACCA	AGGTGCTGGG	TAAATAAGAT	TGTTGTGAAA	TGATACTCGT	2160
TTTGTAAAGA	TTTTAGCATA	TCAATAATCT	GAGCTTGAAT	AGTTACATCC	AAGGCAGTTG	2220
TTGGCTCATC	ACAGATCAAG	ACATCAGGTC	GGCAGGCAAG	GGCAATAGCA	ATAACGATAC	2280
GTGACGCAAT	TCTTCCAGAA	TATTGGAATG	GGTATTCATT	AAAACGTCTA	TCTGCTCTCG	2340
GAATGCCAAC	CTTATTCATG	TAGTCAATGG	CCAATCTPTT	CGCTCTTTTA	GCTGTTTTC	2400
CTTGGTGTTT	TACAATAACT	TCTGTAAATC	GACTACCAAT	TGTTTTTAATG	GGGTCCAAAC	2460
TAGTCATTGG	GTCCGTGAAG	ATAGTCGCAA	TCCTTACACC	ACGAAATTTGT	TCCCAATCCT	2520
TGTGAGAAGA	TAAAGCTGTC	AAGTCTGAC	CACGGTAGTC	AATACTACCT	TGGGCAATAC	2580
GACCATTTTC	TTGAGCATA	CCTGTGAAGG	TCTTTGTCAA	AACAGATTTA	CCTGATCCTG	2640
ACTCACCTAC	CAAGGCTAAT	ACTTCTCCTT	CGACTAGTTC	AAGGGAAAGG	CCGCGAATGG	2700
CTGTCAATAC	TTTGTACGA	ACGTCAAAAT	CCACGCAAT	ATCGCGAGCA	GTCAAAATTA	2760
CATTTTTTTC	TTTGTTCATT	TCTACTCCTA	TCTATGTGTA	CGTGGATCAC	TAGCATCCGC	2820

TAAGTTTGA	CCAACACGA	AAAGGGACAA	GGATACCAAG	ACAAGGOTTG	TCAATGGAAT	2880
CCAGAACAAG	TAGCATTTGG	TTGTTACOTT	TTGTGAATA	TCCGAATCA	AACGACCCAA	2940
ACTTGGCACT	GTAATCGGTA	ATCCAAGACC	GAAGAAAGAC	AAGAAGGCTT	CGTATGAGAT	3000
AAAGCTTGG	AGCAITTTAG	TCATGGTTGT	CACAATAACA	GATACCAATT	GAGGCATGAT	3060
ATTTTGGCA	ACAATGTTCA	AGGTGGTGT	TCCCAAAGTA	CGTGACGCCA	AGTTGTATTCT	3120
CAAGTCACGA	TAGCGAAGA	TTTGACACAG	GATCATGAAG	GCAATACCAA	TCCATGTTGT	3180
TACGCTCATG	GCAAAAATCA	GATTCACGAA	TCCAGCTGCG	ATTGAGTAAG	TCAAGACAAAT	3240
AACAATCAAA	AGAGTGGGA	TGTTTGAGAT	GAGTTGTAA	ACTTCCATCA	TGACACGGTC	3300
AACTGATTTT	GAAATACCCC	AAATACCACC	GACAAAACA	CCGATAACCA	AGTTAATCAC	3360
TGTCGCAATC	ACAGAAATGA	GGATGGAGTT	ACGAGCTCCG	AACCAGACAC	CGTCAAAGAG	3420
CGATTTACCG	TTACTGTGAG	TACCGAATCA	ATGCTCCGCA	TTTGGCTTGA	TATPAACGAAC	3480
ACTAAAGTCG	TTTACCTTGC	TGACATCATT	GAAATCAAAAC	TTAGAAAACA	TTGGGTAGAT	3540
GAACTTTATC	AAATGATGG	CTACCAAGAT	TCCCAACATG	ACTACAGTTG	ATTTTTTCTT	3600
CATAAATTGT	TTAAACACTG	ATTTCACGTA	AGAATATGCT	GCGCATCAA	TAGTTTCAGA	3660
GGCAAAATCG	TCACGTTTTA	CAAACTGAAA	TTTTTCTTTA	TCGATTGTAG	ACATTATTGT	3720
CCTCCTTCTC	CAGTCAATTT	AATACGTGGG	TCAATAATAG	TCATCCAAAT	ATCTCCCAAA	3780
AGACGTGAGA	AGATAGAAAT	ACATGTAAAG	ATGAAGACAA	GACCAACGAC	CATAGAGTTA	3840
TTAGATGCTT	TTACAGATTC	AATCAACATT	TTACCCATAC	CTGGGAAGGC	GAAGACTGTT	3900
TCAGTAAAGG	TTGCAACCAC	GATTAACCCCA	ATAATGGCAG	CAGGAATTCC	TGAAACCAGC	3960
GGAAACCATGG	CATTTTIAAA	GATGTGTTTG	TTTGAAMTTT	CTTTTTCAGA	CAAACTTTT	4020
GCACGAGCGA	AACGAACAAA	GTCTTGAGAT	TGCAAGTCAA	TCATGTAAAC	ACGAATCCAA	4080
ATGGCTGTAC	CAGGAGCACC	CAACAAACCA	AGGATGACTG	CTGTAAATC	GTAAGAACGC	4140
CAATCTCCAG	CTCCCAAGAT	AGGGAATGAA	TCTGGAAGGG	CAATAGATGA	TGCAATCAAT	4200
CGAAGCATGT	AAACCAAGGC	AATCGTTGGA	AGAGCAAGCA	AGAAAGTCAA	AGCCCTGTTT	4260
GAGAGGCTAT	CAATCCAAGT	GTTCCTGAAA	CGAGCCATGG	CTGAACCAAG	TGGCACGGCA	4320
AGAGCATAGG	CAAGAACCAA	ACCAATCAAA	CCAGTAATAG	CAGAGCTGAC	AATCATAGAT	4380
GGATATTGTT	AATTACTTTC	AGTCGCTGTA	TAAGGATCAT	CTTTCCCAT	GCTAGTACT	4440
TCACAGAGAT	CAGCCTGACT	AGGTGACTTG	TAGGTTCTTG	AGTAATATT	TACAGAAGAC	4500
GTTTCTTAC	CTGTTGGGAA	CTGAACCTGG	GCAGTTTGG	TTTGTCCPTG	ACCTTGAGTA	4560

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ATAACCTGAA	GAACGTGGTG	ATTAGCATAG	GTTGGGTAA	AGTCACCTAA	ATTCAGTTC	4620
ACAAAGTTTT	GATGAACAAA	TGGGAACATGA	CTGTTAAAGT	ACAAGAGATA	TTTATGTTTA	4680
GTTCCTGAAC	CGACCAATGA	CCATCCGATA	GCTGGATCAT	TTTCAAAACG	AAGGTAGCGT	4740
TTCAAGTCTG	GATTTTCAGG	GTCTTGGATT	TTATTGTGAT	GGTCAATGTC	AATCAAGTTA	4800
GCATAGAAGT	GAAGAACAAC	TTCAAAAATT	GGAAATTCAC	GAGTAGCATA	GAATGACCA	4860
CTTTCAGTAA	ATTCTCCCAA	AGTCCAACCA	TGACCTAATT	GATTGATGTA	CTTTTCATAA	4920
ATAGCTTTAT	TGGTCGCATT	TGCTTCTACT	GTACAGAAAG	AATCCATGCT	ACTTGCCTTT	4980
TCTTGCAACT	CTTTAGTATC	GTAATACTCA	ATGTAGCCCA	TACGCTCAAA	CACAGTATTT	5040
TCATAGTTAT	CACGTTTATC	AGCCGTTGTC	GCAATTTTAT	TATAGTTAGG	ATCCTGCTTG	5100
AAAATCAATT	TTCGAGGAAC	CAAGGTATAG	ATAATCGTGT	AGGTCAAAGT	CGTTACTAAG	5160
AAAATCGAAA	CCAATGACCG	CAAAACACGC	ATAAAAAATAT	ATTTTTTCAT	ATTATTTCTC	5220
TTAAAAATCC	CAAGAAGACC	TTCTCCTCAT	GGAGAGAAAG	TTCTATTAGA	AAATATTAC	5280
TTACATGATC	TTGCCAATTC	TTTTTGAGCT	TTCTCATTTG	ATTCAGCTTT	TTCTTTCAAC	5340
CATTTTTTCAC	GAGCTTTTTTC	ATACTCTTCC	TTAGTCACCA	CTTTATCTTG	TGATTTCAAA	5400
TATTGTGAAT	AAACATCTGA	CCCCTTAGAG	CTGTTTTGCG	CAGAAGCTCC	AGTAAATGGA	5460
ACAATTCGTG	AAAGCACTGG	TGCTGCACCA	GAAGAAGCCA	TAGCAGGAAT	AAAGAGTGA	5520
CTATCTGTCA	ACCATGCTTG	AGCCGCTGCA	TATTTTTTCAT	AACGCACATT	CAAGTCGCTT	5580
GTCTCTCTGG	CAGCTTCATC	AACTAATTTA	TGCTATTCTT	TCAAAACCAAC	TTGAACACT	5640
GAAGGCTAT	TTGGATTATC	AAATCCTAAA	TATGTTTTTG	TAGTTTCACT	GCTAGTTGTT	5700
TTTAAATAT	CCAGGTAAGT	AGATGGGTCT	TGATAGCTCG	GCCCCCATGA	AATCTCTCT	5760
GATACATCCC	AATCCTCAGA	TGAAGCATTG	GCAGCATAGT	AAGTAATATT	AAGGAATTCA	5820
TCACTGTGTA	TTTGTGTAAT	ATCAACAACG	ACATTTTCAA	CACCAAGAAC	TGTTCTTACA	5880
GATTGTTTAA	AGGACTGAAT	ACGAGATATG	TAGTTTTTTG	ATGCTTGGTC	TACTGGAAAG	5940
TCCAGATGAA	TAGGAAACTG	AACGCCGTCT	GCTTCTAAAG	CTTCTTTAGC	TTTCGCAAAC	6000
CTCGCCTTGG	CCTTGTCAAC	ATTGAATAAA	CCATCTTGCC	CATCAGCTAA	ATTCACACCT	6060
TTCCACTCAT	CACCTAAGC	AGGAAGTTGA	GCAGCGACTA	AATCACCACAA	GGTCTTCTCA	6120
CCAGCTGAAA	CAAGCTCTGG	TTTTACAAAT	AAATACGAA	CTGCTAAAGC	TGCTCCATCT	6180
TTACCATTTGA	TTTGAGCTGA	GTAAGCTGAG	CGATCAAGAG	CAAAATTCAA	GGCTTGACGG	6240
AAATCTTTGT	TAAGCAATGC	CTTCTTAGTA	GCTACTTTCT	CTGAATCTGT	AGTTTTAGAA	6300
GTATAGTTGT	AACTTTGGCG	ATCAATATTC	ACACCCAGAC	CAGCAATCCC	AGAGCCTGAT	6360

TGRTGTAAAT	AGATATTGTC	CTTGATTCT	CTGCAACT	TAGAATAGTT	GGAGCTGGTA	6420
GGGTAAAGAC	GGGCATAACT	ATAAGCTCCA	CTAGTGAGT	TACGCTCTAG	CGACTCCTGA	6430
CTGTATCCAT	CATAGTAAGC	TAGATTGATA	GTATCTAGGT	GGACATTTTC	TTTATCCCAA	6540
TATTGCTCAT	TTTTTACAAA	CTCTACAGAA	GATTTGCGAG	TCAACCCCTT	CAACAAGAA	6600
GGACCATTAT	AAAGCAAGGA	TGTCGGATCT	GTTCGTTTAG	CAAAATCGCT	TCCTTTTGAT	6650
GTTCGAATT	CTTCATTCAG	AGGCCAGAAA	ATAGAATAGG	TCAACTTAGA	GTTCAGAAC	6720
GGTTCAGGCT	GTTTCAAAGT	GTATTGTAAC	GTATAATCAT	CAACCGCCTT	GACACCAACT	6780
GTGAAAAAT	CTGTGGAAGT	TCCTGATAGA	TAATCTGCCA	AGCCTTTAAC	CGAATTTTCA	6840
GCTAAATACA	TAGCTTCTGA	TTTTTTATCT	GCTGCGTGT	TTAAACGTT	CACGAAATCT	6900
TTAGCCCTCA	CCTCTGCATA	TTCTTCTCCA	TCAGAGGTAA	ACCATTTAAC	CCCTTTACGA	6960
ATCTTATAAG	TGTAGGTCAA	ACCATCCTTA	GAGACTTCCC	AATCCTCTGC	AACCTGCAGGA	7020
GCAAGATTAC	CGTAATTATC	GTTAGTGAAT	AAACCATCAA	TCCCATTTGA	AGTCACTACT	7080
GTGTACTACT	TTTTACTTGA	AATCAGGTAG	TCCAAGGTTT	CTGGCTCTGC	TGTATAAACA	7140
TAGCCATAAG	CTTTAGGGGC	TGATGAATCA	GATGATTTTG	AAGAACTGCA	TGCTGCAAGT	7200
ACACCTGCTG	CTAATAAAAC	AAGACCTGCT	GTAGCAATA	CACGATTTT	TTTCATTTTC	7260
TACTCCTCTG	TTTATGTGAA	TTATAGATTG	ACAACCATTA	TATCACATTA	TCCATTAATA	7320
ATCAAAACAA	TTTTCAGAAT	ATTTAGGCTT	GTGACACAA	ATTTTTCATT	TTTTTTGAAT	7380
ATATGATTCA	AATGTGCTT	CGAAGTGCA	AAGACTACAG	TGAAAATAGG	AAATTTGACG	7440
CAGAAACTTT	GGAGTTTAGG	AAGACATACA	GTAAAATGAA	ATACGGACGG	AACAATGTGA	7500
TTTTGGAATT	CAAAATAAAT	TATAACAATA	TTGTAGAAGT	ATCATCTAG	TATTCAAGAT	7560
TCAGTTTACT	ATGTCCTTTC	ACACCAACT	TATCCCGAAT	TCAATTACTT	TTGTGATTTA	7620
CATATATAGA	TAAAGACTAT	CTTTTATACT	TTAAAAATTC	TGCTTACCCT	ATCCACTATA	7680
TGCTCCTCGC	TATCAAGTTT	CTATTCTAG	CCTACGATT	CACATTGCT	TTCTCTGACA	7740
ATTCTTATTT	CCTGCTGAG	ACTTAAACG	ATCTATCCCC	AGACACTTTT	AATCGCTAC	7800
CTCAGATAG	TCAGGCTTGG	GGAGCGCTAT	TGTATTCAAC	GGTAGTGGAG	CCCTACAGAG	7860
GACTTACACC	TCAGATGCAC	GACATGCCCA	TCGTATAAAA	AATCTCCATC	CCAAGGTAGA	7920
AGATTTCAAA	CTTATAAAAC	TTAATCGGTC	ATGTCOGATA	CCAACATTCG	ATGCTCCAAT	7980
GGAACTATGC	ACATAACTAG	CAAGAAAATA	AAGCCTGACT	GAATCCAGAA	GAGAGCCAG	8040
TCAAAAATTC	CGTGACACGC	AACCACTGTA	AGGAAAGATA	GATAAAGGCC	GATAATCGGA	8100

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CGTTTCCCGC	ACTCCTGACT	CATATCCATC	ATCAAGCGAA	CAGGAGCAAC	AGAAGACAAA	8160
ACTTAATAAAA	TAGTCCCCAC	AATTCCTGAA	CTCAGAAATCG	TATCAATATA	AAGACTGTGG	8220
GCATGTTCAAT	GATAAGGAGC	ATGTATCCGA	GGATAAGAGT	TCAATATAGGT	CAATGGCCCT	8280
TCACCCCAA	AAGGATTTTG	CTTAACAAG	GCCATCCGAG	CATCCAGAT	AGAAATGCGT	8340
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CTCAAAACAA	TCGCGAAGAC	CCCAATACTA	AGCCAAAAGG	CCTTCCAGTT	TTTAATAGTC	8460
GTAAGAGAT	AGATAATTGC	TCCAGCGATA	ATAGCAGGAA	AGGCAGTTGG	ATTTTGAGTA	8520
AACCTCAAA	CAAGAGATT	AACAAGCCT	GCAATCACAC	AGAACTACTT	CAACCAATT	8580
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TAATAATTAG	GATTAAAGAA	GGTCACCTCT	GCCCGGTTCT	GATGCCACAC	CTGCATATTG	8700
GGTGAAGAA	AAGCATAGTT	AAATTTCTTC	ACAATTTGGA	AATGTTCTAA	ACTGGCAAAA	8760
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ACAAGACCA	TCCAATTTTG	TGCAAGAATG	GATATAACAG	TACTATAGCT	AAGAAAAAGA	8940
AGCAGCATCG	GATGCTCCCC	CATTTTCTGA	AGAACTACTT	TCAATGCTCC	TGTAAAAATC	9000
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TATCCTATAT	TGTACCACTT	TTTTAGCAAT	TTGAAAAACA	AGGAACGTT	TTCCAAAAATA	9240
AAAAACCTAT	TTTATCCACC	ATATCAAGGC	TTCAAAATGA	TACTTCAACT	CCATTCTCAA	9300
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TATACTCGGC	ACTAGAGTAC	TTACGTTTGA	CATTGGCTCC	AACCTTATAG	AGTTCATTTG	9780
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CAAAATGCTC	TTCCAAATTA	TCATATAAGT	CTTTAAGATT	ATTTCCAAGG	CTATCAGAAT	10680
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AGATGATGCG	GAATAGGTTT	GTAAATTGAT	TAGCCCCCAT	GATCTCTGCT	GCTTCATCCA	11400
GACTTTCTGG	AATCGAGATT	TTGATATAGC	CACATAGAG	AAAGAGGGTC	TGTGGAATCG	11460
CATAGGTCAA	GTAGAGCAAG	ATCAAAACCA	AGGTATTAGC	CAACCGAGT	TACTCATCA	11520
TAACCGTAAT	CGGAATCATG	ATGACTTGGA	AAGGTACGAA	GATTCGAGG	ATTAAGAGGG	11580
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GAAGGCCAAA	GAATATATCT	ACAATATCCT	TAGTGGGTTT	GAAGGAACTA	AAGAGGOTAG	11820
CAAGGAGCGG	CAC7AAAAATC	AGAACCAGATC	CTAGAAATCAA	TAGAATGTAT	TTGCCAATCA	11880
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ACTCTCAATT	GGATGATCGA	AATCACTACA	ATTAAAGAAGA	ACAAGATTAC	GGCAATGGCA	12000
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CCACCTTTTA	GGGCTAGGAT	AAAGACCATTA	GAGACACTTG	G7AGCAAGTA	AGGCAATCTA	12180
ATGTTCCAGA	AAACTTGCTT	GCTAGTCGCA	CCATCAATCC	TTGCTGCCCTC	TGTAAATCTCA	12240
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TCACCAACCA	CCATGGCAAT	CGCAATGATT	CGGTAAGAC	CAATCGCAAT	CATGAATTTT	12600
GGATCCATGA	AGAGGAGCTT	AAAGTTGTTT	AAGCCAAACA	ATTTGTAGTT	ATAAGTCAAT	12660
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GCTTGTAAACA	AGAGGGGGAT	GACCAACAAA	GCCCCATGCC	AATATTTTGT	TAATACTTTT	12780
TTCATAGTCT	CTCTACTCCT	AATCCACATC	CGCTTTCATC	GGGTAAAGA	AGGCATTCAA	12840
ATCATTTGAC	ATGCCCTTGT	TATCAACCGT	CAAGACATAG	TTCATGGTCA	AGGTATGGAA	12900
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TCATATTGCG	GTTTCATATCC	CATTTAATGT	ATTCATATAT	ATGATAAAAT	AGGAGTTGAT	14940
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CCCAATCACC TAAAGCACGA TTATCATCAA AACGATTGCC AAACCAACCA TCATCTAATA	15240
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ATCCCTGATC TGAATGAGTC ACTAAAGCTA CCGGTGTTTC AAAGTATTCC TCAGGAGCTA	15480
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(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4117 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

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AGAGGGAATA TTGAGGAGAA AAATCCTGAG CTTACCACTT OGAGTTGGAA AGAGCTGACT	180
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CTCAGCTAGC TTATCTGGGA GATGAACCTAG CAGCTTTTAT CCATTTGGT CCTAATACCT	360
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AGGTCAAGTCC TTGGAGGAGA GGAAAGGGCG ACTTGTCTCT TGAAGTATCC CAAGCTGCCA	600
CAGAGTTTGA TATGGATATG GGGGTCTACC TGTCAACCTG GGATGCCCAT AGTCCCTCT	660
ATCATGTGGA CCGAGAAGCG GACTACAAAG CCTATTATCT GGCTCAGTTG AAGGAAATCT	720
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GAGAGGCAGA TGTTTCCATC CGTCAGGCT GGTTCACCA TGAGGATCAG GATCCTAAGT	1080
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AATTTCGAC CTATCGCAAT GAGCTCTATA AAGAAAGATT GGCTCTGGGA GCTGAGGTAT	1260
CTGTCCAGC TCTTTCCGCA GACTTTGCTT GTGCGCATTT GACAGACGGC CTTGAGACCA	1320
GCTCTGGGC AAGCGATGCA GACTTGCCCA TCCAGTTAGA ACTCGACTTA GGTCTCTCTA	1380
AACTTTTGA TGTAATTGAG TTAAGAGAAG ATTTGAAGCT AGGGCAACGA ATCGCTGCTT	1440
TTCAATGTGA AGTAGAGGTG GATGGTGTCT GGCAGGAGTT TGGTTCGGGT CATACTGTTG	1500
GTACAAACG TCTCTTACGA GGAGCAGTTG TTGAGGCACA GAAGATACGT GTAGTCATTA	1560
CAGAATCACA GGCCTTGGCT TTGTTGACCA AGATTTCCCT TTATAAAACT CCTGATTAT	1620
CAAAAAAAGA AGTGTGTCAG GAACTAGCAT TTTCAGAAAA AAGCCTAGCT GTGGCAAGG	1680
GAGAAAAATG CTATTTTACA GTTAAGCGCA GAGAAATGAG TGGTCCTTTA GAAGCTAAGA	1740
TTTCGATTCA ACCGGGACA GGTGTCCATG GTGTGCGCTA TCAGGATGAG ATTCAAGTCC	1800
TTGCGTTTCA AACTGGGTAG ACTGAAAAAA GTCTGACGCT ACCAACCTTG TATTTGCGAG	1860
GAGATAAAAC CTGTGATTTC TATCTGAACC TAAAGGTGGA TGGTCAGCTT GTGATCAAC	1920
TTCAAGTCCA AGTTTCAATA AAGAAGAAC TTTCGCGAT GCAAAGGTTT TTTTGGTTAT	1980
TAGTGACTTG GTAAACGAGT GAGGOTGAAA GTTAGTTGTT CAGCTTTTAA GAGGTCTTGG	2040
TGTTGAATAG TTGATACGAG TGTTTTGTCC AGTCGGCATT CTTTGACAAA GTTAAATGG	2100
TGTGGTFTT GTTTAGTATG GATATCCAGC CATTTATCTT CTTTACGAG GTAGACTGCT	2160

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AGATGGTCAA	AGAGAGGGAT	TCCGAGGTCA	TAGCTTGGTT	TTCTGGACA	GGTTGGATAA	2220
AATCCGAGAG	CTGACCAAGT	GTACCAAGCA	GAGAGACTAC	CATTGTCTTC	ATCTCCAGGA	2280
TAGGCTTCCC	AACITGGGTG	AAAAGCTTTC	TGACGGAGCG	TCTTGATAAG	AAGGCCAGTG	2340
TAGTCAGGGT	AATCGCTGTA	ACGGAAGAGA	TAAGGAATGT	GGAACTAGG	CTGGTTGGAA	2400
ATGGCTATT	GTCCAAAAGG	AGCAGTAGCC	ATCTCGCTCA	TTTGTGAAAT	TTTGTAACCA	2460
TAGCCTGTTC	TTTCAAAGAG	GGGAGCATCT	TGACAGGCTT	TCAAAAGATA	GTTCGTAAG	2520
GTTTCTTTTC	CACCCATCAG	TTGGATTAAAG	CCAGGGATGT	CGTGGAGAAC	GCCTAAAGTA	2580
GCTTGAATGG	CAGAGCATTC	AGCGTAGTCT	CGCCCCAAC	TATAAGGAGA	GAAGTCAGGG	2640
TGAAAGTTTC	CTTGATTGTC	TGCTGCTCGC	ATGTAACCTG	TCTCAGCGTC	AAATAGCTGG	2700
CGGTAAATTT	GTGAAGCAGC	CTTGTAGGTT	TCAGCGATTT	CTATGTCTTC	TAGTTTTTTC	2760
GCACAGCTGG	CGATACAAAA	GTCACTATAG	GCATAGTCTA	GAGTATGGCT	AACACTTTTC	2820
TGTTGGTCGG	TAGAGAGGTA	ACCTAGTTCT	TGGTAITGGG	CTAGTCCGTG	CGCGCCATTG	2880
ATGCCGAGAG	GGTCGGCTTT	GCTGGCTCTT	TCGAGCATGG	CTTGGAAGAG	TTCTCTTTCT	2940
AGGTGGGGGG	TCATGTCTTT	GCAGGGCGCTA	TCTGCGATAA	TACCGTCTAA	AAGTGTACCT	3000
GGCATCATAC	CCCCTTCATC	TGGAGCCAGC	CATTTTGGAA	GGAAACCAAT	ATCGCGGTAG	3060
CTATTGAGGA	AACCTTCTAA	AAAGCGTTGA	TAGTGTCTCCG	GTATGATAAG	GGCAAGAGGG	3120
GGGAAGGTGG	TGCGGAAGGT	ATCCACAGAA	CCATTGTGTC	TAAAGAGGAC	ACCAGGCTTG	3180
ACAGTACCAG	TAGCCAGATC	CATCTGGATG	GCTTGCCTCG	ATTCTATTAA	CTCATAAAAA	3240
GTCTGTGGGA	AGAGGAAGAG	TCTGTAGAGG	CAGTGGTCAA	AGAAAGTTTC	GTACAGCTCT	3300
CCTGTCTCTA	TAATGTCAAA	ACGATGGAGG	AGATTTTCCC	AATCCACTTG	GGCACTTGAT	3360
TTACAGCTAT	CAAAATCTTC	TTGAGGTAGA	TTGATTAGAG	CTTGAGAAGG	AGAGATGAAA	3420
GAAGTGGCTA	GTTCATCTTC	GGTTTGACTA	CTTGCTAAGT	CAATTCCGCA	GTCTCCAGCT	3480
TCTTGGCTGA	TAGCAAGAAT	ATCCGTGTTC	ATTGCAAGGG	CAGTGAACAT	CGTTAGCGAA	3540
TTTTTGTAG	TTTCAGTTTT	ACCTTCTTGT	CGCAGGGCAA	GAGTCCCGCT	ATCTACTTGC	3600
TCTACTGTCA	GTTCATCTGC	TGCGTGAAGA	TAGAGGGAGA	GGGCTTTGCC	TTGCTTTTGA	3660
TTCAACGAA	TAGAAGCACC	ATAGCAAGTC	GGTGTGAGCT	GGGTTTCAAT	CTGATAACGC	3720
AGAGAAAAGA	GCTTCAATAA	GTGAGGCTCG	AAGCAAGCTT	TATCTATATC	ATAAGAAGAC	3780
TGGCGGTGAA	AGAGGCTGTC	TCCCCCAAT	TGACTGTTGA	CAGGTGTGAG	AAGGAGCCAA	3840
GAGTAGTCCC	CAATCCAAGG	ACTGGGCTGG	TGAGTTAATC	GAATCCCCTG	AAAGATAGGC	3900
AGATGTGAT	CAAAAAACCA	AGATCCATCC	TGCTCACTGG	TCTGGGCGAC	AAAGTAATTC	3960

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ATCCCAAAG GCACGCCGTGT GTATGGCAGG GTATTTCCCC GAGAAAAGGC ATGCTTGTG 4020
 GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGGTT TCATAGTCTT TCCTTTAGCT 4080
 GTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG 4117

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2727 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGOTTCAAT TATTATTAC TCTAAGTAGT CATATGTTCT TTATTATGT GAGTTTTTAC 60
 CTTTTAAAGG ATCTTGTAG ATGGGAGAAG GTTTTAAAG TGACAGATGA TAATACAAGA 120
 AAAGTTCGTT TATTAGTAGC CTTTTTTAGC ATTGTCATAG GCTACATCCT GAGTTCTTTC 180
 TTTATTAGCC TGTATCATTT GTGGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG 240
 TAAAGGAAAC GAGTATGGAT AAAATTGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA 300
 GCOTGACGAT CGAGGAGCA AAAAATGCAG TCTTACCTTT GTTGGCAGCG ACTATTCTAG 360
 CAAGTGAAG AAAGACCGTC TTGCAGAAATG TTCCGATTTT GTCGGATGTC TTATTATGA 420
 ATCAGGTAGT TGGTGGTTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTGTGCA 480
 AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCTTA CAAGTATGTC AGCAAGATGC 540
 GCGCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCCGTG GGGTCAAGCC AAGGTATCCA 600
 TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCAATTGAAA GGTCTGGAAG 660
 CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGCA GAACGCTTGC 720
 ATGGTGCTCA TATCTATATG GACTTTCCAA GTGTGGTGC AACGCAGAAC TTGATGATGG 780
 CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TCGCGTGAG CCTGAGATTG 840
 TTGACTTAGC CATTCTCCTT AATGAAATGG GAGCCANGGT CAAGGTGCT GGTACAGAGA 900
 CTATAACCAT TACTGGTGTG GAGAACTTC ATGTTACGAC TCACAATGTA GTCCAAGACC 960
 GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTC 1020
 GAGACGCTGT CTGGGAGCAC AACCGTCCCT TGATTGCCAA GTTACTTGAA ATGGGTGTG 1080
 AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTTCTCA ACTAGAAAAA CTAAGAGCTG 1140
 TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTACAG 1200

765

CCTTGATGAC AGTTGCAAAA GGCGAATCAA CCATGGTGGG GACAGTTTTC GAAAATCGTT	1260
TCCAACACCT AGAAGAGATG CGCGGCATGG GCTTGCATTTC TGAGATTATC CGTGATACAG	1320
CTGTATTTGT TGGTGGACAG CCTTTGCAGG GAGCAGAAGT TCTTTCAACT GACCTTCGTG	1380
CCAGTGGCGC CTTGATTTTG ACAGGTTTGG TAGCACAGGG AGAAACTGTG GTCGGTAAAT	1440
TGGTTCACCT GGATGAGGT TACTACGGTT TCCATGAGAA GTTGGCGCAG CTAGGTGCTA	1500
AGATTCAAGC GATTGAGCCA AGTGATGAAG ATGAATAAGA AATCAAGCTA CGTAGTCAAG	1560
CGTTTACTTT TGTCTCATAT AGTACTGATT TTAGGTACTC TGGCTCTAGG AATCGTATTA	1620
ATGTAGAGTT ATGGAATCTT GGGCAAGGGT CAAGATCCAT GGGCTATCCT GTCTCCAGCA	1680
AAATGGCAGG AATTGATTCA TAAATTTACA GGAATTTAGG CTGGAGAACC AGCCTTTTTTC	1740
TAAAGATAAG GAGAANTATG AACAAAAAAA CAAGACAGAC ACTAATCGGA CTGCTAGTGT	1800
TATTGCTTTT GTCTACAGGG AGCTATTATA TCAAGCAGAT GCCCTCGGCA CCTAATAGTC	1860
CCAAAAACAA TCTTAGTCA AAAAAACAAG CGTCTGAAGC TCTTAGTCAA GCATTGGCAG	1920
AGAGTGTCTT AACAGACGCA GTCAAGAGTC AAATAAAGGG GAGTCTGGAG TGGAAATGGCT	1980
CAGGTGCTTT TATGCTCAAT GGTAAATAAA CAATCTAGA TGCCAAGGTT TCAAGTAAGC	2040
CCTACGCTGA CAATAAACA AAGCAGTGG GCAAGGAJAC TGTTCCAAAC GTAGCTAATG	2100
CCCTCTTGTC TAAGGCCACT CGTCAGTACA AGAATCGTAA AGAAACTGGG AATGGTTCAA	2160
CTCTTTGGAC TCCTCCAGGT TGGCATCAGG TCAAGAATCT AAAGGGCTCT TATACCCATG	2220
CAGTCGATAG AGGTCATTTG TTAGGCTATG CCTTAATCGG TGGTTTGGAT GGTTTTGATG	2280
CCTCAACAAG CAATCCTAAA AACATTGCTG TTCAGACAGC CTGGGCAAAAT CAGGCAGAAG	2340
CCGAGTATTC GACTGGTCAA AACTACTATG AAAGCAAGGT GCGTAAAGCC TTGACCAAAA	2400
ACAAGCGTGT CCGTTACCGT GTAAACCTTT ACTACGCTTC AAACGAGGAT TTAGTTCCCT	2460
CAGCTTCACA GATTGAAGCC AAGTCTTCGG ATGAGAAAT GGAATCAAT GTCTAGTTC	2520
CCAATGTTCA AAAGGGACTT CAACTGGATT ACCGAACGG AGAAGTAACT GTAACCTAGT	2580
AAAGATAGC CTAACACTCC TATGTCACTT ATGATGTAG GAGTCTCTTT TACTAGTTTA	2640
AGCAGGACTA AGHCAGTAC TAAGACAAA TAGCAACTTC TAAACTAAC TTCCAGTTTT	2700
GGGAGAGAGA TGGAAATGAC TTGAGAA	2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 5717 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTAACAAAAA AAAACAATTT TTTGAAAATTT	60
ATGTTAGCAG GAATTCGCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTTTTATTG	120
TTCCACATGCT ATAAATTGCT TGGACTCTTA TTTTATTATCA TTAACCTTAGG TATGATTTTT	180
ATTAATTCAA TTCTTTTTTT TCAGTATGAT AGTGGTATTA TTTTAAGATA CTTGAATTCCT	240
AACAATAATA ACTTGAATTT TCAATATATA GTTCAACTTT TAATAGCATT TGTATTATT	300
TATTTTCTCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TTGTTTCTAT ACTGCTTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTCTACGTA AATAGTTATG TTTTGTCTTA TAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGAGTATG CGGAAATAG CTATAGAACC TCAAAATTCG CAAGAATTTA TCACGATCT	540
ATTTAATAGT TGTAAGGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAACATAAA ATGAACAAAT TTAAATTTTC GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTC GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAAATAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAACCTTAT TGTGCGTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGGCAAAATC TTTATACAGA GTCGGATGTT GGTAAAGGAG AGATTAATGT TCTTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTTCA GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAAGAT TAGAAAAAAT TGTTCGGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAAAT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCTTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAAATAT ATATATCCCT	1140
ACCATCGGTT CTTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTTA	1200
TCTGATAGA CAAAGTGGCC GACTACACCA GAGATCGCTG CTATTTTGGG AGGGATAATG	1260
ACTAATTTAA TAATTAAAAAT ATTTCTGGGA TGTATATAGT AAATCCTAAT AGATAAGGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTTCT GGAAAAACGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAGATATA CAATATTAGA GCGAAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTTCA TGTATAGAAA ACACAATTA TAGTATTGTT CTTGGGTATT ATTTTGTCTA	1560
TATATTATGC TTACTACAAT AAAAATATTC AAACATCATT GGAATAATA GTATGGCTTT	1620

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TTTCATCGTT TGAGATTITA TTTTGTCTG TTAATTTTAG AACATTTAT CAGTTACCAG	1680
TGGATATTTT TATTGGTATG ATAATATTTT TAAATGCTGTG GATATTTAT ATGTTAGGTA	1740
TAGTGTGTCT TASTTATAT ATAACCTTAT TATTTAGCAA GGAAGCTTAG TATGTTAAA	1800
AAATAGGTA TAATGAGCAT TTGCAATAT ATAATTATTT TATACTGCTT GAGAATGTAT	1860
CGTATTATCA ATAATATTGA AACAACTCTG CTAACGGTTA TATGCTTAAT GTTATGTGTT	1920
TTTTTAAGAC GTTTATTGA TAAAGATAAG TAAATAGATG TTAAGTAAAA ATGTAGAATA	1980
TAAAGGAGGT GCAATGAGTA TGATTGAAGT TAGCCATTTA TCAAAAAGTT TTGGTGATAA	2040
AATAGCTTFA AATAATATAA GCTTCACTGT TAAAGAAGGT TAGATTTTGG GATTTTAGA	2100
ACCATCTGGT TCTGGAAGA CCACAACGAT TAAATTTCTG ACTGGGCAAT TCCTTGCAGA	2160
TAAAGGACAA TCTATTATT TGGGACAAAA ATCTCAAAAT TTAACAAGCG GTGAATTTAA	2220
GAGAATTTGA TTGGTTAGCG ATACAAGTGG ATTTTATGAG AAAATGCTCT TGTATAACAA	2280
TCTTCTTTTT TATAGTAAAT TTATAAATAT TAGTAAATCA CGTGTTGATA ATTTGTTAAA	2340
GCGAGTAGGA TTATATGATA GTCGCAAGAT GGTAGCAGGA AAATTTATCCA CTGGAATGAG	2400
GCAACGAATG CTTTTAGCAC GAGCTCTTAT CAACAACCCC GCTGTACTCT TTCGGATGA	2460
ACCGACCTCA GGTCTAGATC CCACAACCTC TCGAACAAAT CATGAGTTAA TTTTAGAAAT	2520
GAAAACAGCA GGGACAACGA TTTTCTTAAC GACTCATGAT ATGAATGAAG CAACCTCTTT	2580
ATGTGATTAT GTTGCCCTAT TAAATAAAG GAAATTAGTT GAGCAAGGAG CTCCTCTGTA	2640
ACTCATTCNA AGATATAATA AAGATAAAAA GATTAAAGTT ACAGATTATA ATGGGAATCA	2700
GATAACTTTT GATTTTACAT CACTAGAACCA GGTATCTCAG ACTGATCTGG AAAATATTTT	2760
TTCAATTCAT TCATGTGAGC CTACTTTAGA AGATATTTTT ATCACATTA CAGGAGGAAA	2820
GCTAAATGCT TAAACGGTTT CTGGCTTTGG TATGGTTGGG TTGTCAAAAT ATCCTTTCCA	2880
ATAAGAGTAT TTTATPGCAA GTTTTAGTGC CTTTGTCTTT CACATATTTT TATAAATATC	2940
TTATGGAAAC ACAGGGGAAG GTCAACGATC AACAGGCATT AGTCTTTTGG ATGATGTGTT	3000
TACCTTTTTC TTTTCTTTTG GCTGTGGAA GTCCATAAC TATTTATCTG TCTGAAGAAA	3060
AGAAAAAGTA CAATTTACAA ACTCTTCTGT TGAGTGGTGT TAAAGGCTCC GAATACATTT	3120
TATCAACTAT GTTCTCTCCT TTTTGTCTAA CTTTGTGAT TATGGGAATC ACTCCTCTTA	3180
TTTAGGAAT TACAATTTGA CATACTTTTA ATTATATTAC AATGTTCTTT CTAACCTCTT	3240
TATCCATCAT TTTATCTAT TTATGTAGAT GTTTAAACCG GAAGAGCCAA GTAGTAGCTC	3300
AGGTATTCAG TCTTCTCTCT ATGATTTTAG TTGCTTTCTT ACCGATGCTA TCTGGTTTGG	3360
ATAAGACAGT TCGGAAGATA ACAGATTTATA GTTTTATGGG ACTATTTTACT AAGTTTTTCA	3420

CAAAATGGGA GGAATTTTCA TCGAATAAAA CTCTAATCC TAATCTAACA CTACTTATTT	3480
GGATTGTTCT TCTATTAACT TTAATTACGA TAACATTAG GAAAAAGAAA ATTCTTAAAT	3540
TGAGTTATT TTATGATTAT AAACACAAGT GGGAAAGAAA AAATGAAGTG ATCTTTTGA	3600
CAGCAATCT ACAGAATAGT CTTATTGCTA TATTTTGATT TGAGTGACG AAAAAAGAAA	3660
AATAACAATA GTGCTCATAC TAAATGCAGA AGTTTGGGT GATAAGATAA CTGATAAATT	3720
GCAATAAAAA ATGCACATT TTTAATCTC CTCTATAAGT GCTTCAAAAA GTGCTTCAAA	3780
ACCTGTCTTG TAATCCAAGT ATTTTGGGG ACGGTGATT ATAAGCTAGC AAAGCATCAT	3840
TAAGGATTTT TTGGGTAAAT GTTGCCAAAT CGGTTAAGA AATACTCAC GAAGAAGTCC	3900
ATTCGCATTG TCATTACTTC CCCTTGGCA AGATGAATAG GCATCCGCAA AATAAACAG	3960
AATCCCAATT TGTTCAATTA AAGGGTAACA AGCAAACTCT TTTTCTCTGT CCGAAGTGAA	4020
AGTCTTTAAT TATTTCTTG GAAAGAGTCT TGTGAGGTGT TCAATAGCAG TCAACATGGA	4080
TTTAGCTGTT TTTACTTGAC AAGTGCTAGT AGAAATAATA GAATAGTAAA AAACCTTTAA	4140
AGCAGTCCAG AGAGCGAGCT AAGGTTAGAC GGTGAAAGGG TGGAGACTAC CCATTTTTCG	4200
TGGAACTTGT CTGTGGCAG GTTCCTTTT TCGTGGCTTC TGTTGGCCAG ACTCTCTCAC	4260
TAGTAAAGGT AAAAGAGAAA ACCTATGCGA GAACATCGTC CAATCATTCG TCTTGATTTT	4320
CCTAGTTTTG AGGCGGTCAA GGAATTTTTA GCTCTTTTCC CAGCAGAAGA AAGCCTTAT	4380
CTCAAGGTAG GGATGAGGCT TTATTAACGA GCGGGGCTG AGATTGTGTC CTACTTAAAA	4440
GGTTTGGGTC ATAGTGTCTT TTTGGATCTC AAACCTTCATG ACATTCCTAA TACAGTCAAG	4500
TCAGCCATGA AGATCTTGTC TCAGCTTGGT GTCGATATGA CTAATGTCCA TCGCGCTGGT	4560
GGGTAGAGAA TGATGAAGGC GGCCTGTGAA GGTCTTGGGA GTCAAGCCAA ATTGATCGCT	4620
GTAACTCAGC TCACATCAAC GTCAGAACTC CAGATGCAGG AGTTTCAAAA TATCCAAACC	4680
AGTCTGCAAG AGTCTGTGAT TCACATGCC AAGAAGACAG CTGAAGCTGG CTTGTATGGT	4740
GTGTGTTGCT CGGCTCAGGA AGTACAACTC ATCAAGCAGG CTACCAATCC AGATTTTATC	4800
TGCTGCACAC CAGGATTTCG TCCAGCTGGT GTTGCAAGTG GAGATCAAAA ACGAGTCATG	4860
ACACCTGCTG ATGCTATACA AATCGCAGT GACTATATCG TAGTGGGACG TCCCATTTACC	4920
CAAGCTGAGG ATCTCTGTGC AGCTTATCAT GCCATCAAGG ATGAATGGAC ACAGGACTGG	4980
AATTAAGAA CTAGATTAGA AAAATAAAGG GAGATAACCA TGACACTTGC TAAAGATATC	5040
GCTAGCCACC TCTGAAAT CCAAGCCGT TACCTCAAC CAGAGGAACC CTTCACTTGG	5100
GCATCTGGTA TCAAGTCACC GATTTACACT GATAATCGTG TGACACTAGC CTATCCAGAA	5160

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ACTCGTACCC TAATTGAAAA TGGTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAACGTGATG CAGGAACCTGC AACAGCAGGG ATTCACACAG GAGCCATTAT TGCTGATAAG	5280
ATGCACTTGC CTTTGGCTCA CATCCGTAGT AAACCAAAAG ACCACGGAGC TGGTAATCAA	5340
ATCCAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGG TTGAAGACCT TATTTCAAGC	5400
GGTGGTTTCAG TTCTTGAAGC GTTAGCAGCA GCCAAGCAG AAGCAGCAGA TCTACTTGA	5460
GTGTAGCGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAAGCTTGC AGATGCTGGT	5520
GTTAAACTTG TGACGCTTTC AAACATATAG GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTA AAGAAGACCA AGAAAAATGG	5640
CAAGAAGGTT AGGTCAGTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATTT	5700
TATTTAAAAAT ATGACAG	5717

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAAAAGAA ATCTTGCAGC CTGGATCAAG CCCTTCATGA GCATTTTTC	60
GAAGAAGAAT TAGCTGGTCA CTTTCATGTC CTTCATGGA CTTTTTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GGTTCGTAAA CTTTATTGCA GCTCTTCCTC	180
TAAATTTCTT AATTGTTGAA CCAATTGCCC GTTTTATACT AAGTCTCTTT CAGAAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCAACT ATTATCTAAG	300
CCAGTTCTGT AAACCTACTA TATTTGAAAT CCACCTTCCTT TPAGGGTGCA ATGGTTATAA	360
ATGAATTTTT GAGAGGATCA GAATGAAAAA ACTAGCAACC CTTCTTTTAC TGCTACTCTT	420
AGCCCTAGCT GGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGCTTGTCT GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AAGCAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTTCACA CAAGCCAAGG TGAATATGCG ATTAACACTC TCCTTAAACT	660
CGCTCTCTTA GCGGTTGAAA ATTTCTCTAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTATATG ATGGCTTTAT GGTCCAAACT GGAGATCCAA AAGGGACCG	780
TACAGTGGT CAGTCCATCT GGATGACAA GGATAAGACT AAAGACAAAG GAACGTGTTT	840

CAAGAACGAG ATTACTCCTT ATTTGTATAA CATCCGTGGT GCTCTTGCTA TGGCTAATAC	900
TGGTCAACCA AACACCAATG GCAGCCAGTT CTTTCATCAAC CAAACTCTA CAGATACCTC	950
TTCTAAACTC CCTACAAGCA AGTATCCACA GAAATTAAT GAAGCCTACA AAGAAGGTGG	1020
AAACCTTAGT CTGATAGGCA AACACCCAGT CTTTGGTCAA GTGATTGACG GTATGGATGT	1080
TGTGGATAAG ATTGCTAAGG CCGAAAAAGA TGA AAAAGAC AAGCCACTA CTGCTATCAC	1140
AATCGACAGC ATCGAAGTGG TGAAGACTA C GATTTTAAA TCTTAAAAAC CAAAAAATA	1200
CAGTATCCAC ATTGGGTACT GTATTTCTTT TACTCTCATT CTTAAGTTAA ATTATTAATA	1260
TCCCATATTT GGTCTATCCA GCCTTCATAA AAGTCTGGCT CGTGGCAGAC CATAAGGATA	1320
GATCCCTAT ATTCTTTGAG AGCGCGTTG AGCTCATCCT TTGCATCCAC ATCCAAATGG	1380
TTGGTGGCT CGTCCAGCAC TAAAACGTTG TTTTCAAGAT TCATCAAGAG ACAGAAACGA	1440
ACCTTGGCTT GCTCTCCCCC TGATAATACT TGAATCTGGC TTTCATPATG TTTGGTTGTC	1500
AAACCACAAC GGGCAAGGGC TGCACGGACT TCTGCTTGAT TAAGGGCAGG AAGGCATTTC	1560
CAGACAGCTT CAAGAGGAGT TTGGCGATTA CCGCTTCTA CTTCTGTCTC AAAATAACCA	1620
AGTTCTAAAT AATCTCCAGC CTCACCTTCC CAGCGGATTG GCGAGATAAT GCCCAAGAGA	1680
CTCTTCAAGA GAGTTGTTTT TCCAATACCA TTAGCACCAA TAATCGCAAC CTTTGTATTG	1740
CGTTCGAAGG TAAGATTCAA AGGCTTAGTA AGAGGAGCGT CGTAACCAAT TTGCAAGTTC	1800
TTGGCTTGGG AGATAAAGCG CCCTGGTGTA CGAGCTGGTT TGAATCAAA GGATGGTTTT	1860
GGTTCTCAC TTTGGAGTTC GATAATATCC ATCTTATCCA ATTCTTTTG ACGAGACATA	1920
GCCATATTAC GAGTTGCAAC ACGGGCTTTA TTACGAGCCA CAAAGTCTT GAGGTCTGCA	1980
ATCTCTTTCT GCTGGCGTTC GTAGGCTGCC TCTAGCTGAG ATTCTTCTAT AGCATAACT	2040
TCTTGGAACT GGTAGTAGTC ACCAGAGTAA CGGCTCAGCT GTTGATTTTC CACATGATAG	2100
ACAATATTAA TAACGTCAAT GAGGAATGGA ATATCGTGGC AAATGAGAAC AAAGCATTC	2160
TCATAGTTTT GGAGATAGCG CTTGAGCCAA TCAATATGCT CAGCATCCAA GTAGTTGGTC	2220
GGCTCGTCCA ACAGCAAGAT ATCAGGCTTT TCAGGAGAA GTTTTGCCAA AAGCACCTTG	2280
GTTCCTTGCC CACCTGACAA AGAAGTTACA TCCGTATCCA TGCCAAAGTC CATACACCA	2340
AGAGCACGCG CTACTTCGTC AATCTTAGCA TCCAGGTAT AGAAATCACG ACTCTCCAGA	2400
CGGTCTTGA A GTTCTCTCAT TTCTTCCATG AGAGCATCAA CATCGCGGCC GTCTTCAGCC	2460
ATTTTCATAT AGAGGTCATP GATACGAGCT TCAGCTTTGA AAAGCTCATC AAAAGCCGTA	2520
CGGAGAACAT CACGCAACGA CTGTCTTTCA GCAAGGACAG AGTGCTGATC CAAGTAACCA	2580

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GCCGTCACAT ATTTGGACCA CTCACCTTT CCTCATCTG GCAGCATTTT ACCAGTCAAG	2640
ATACTCATAA AGGTGTGATTT TCCTTCACCA TTGGCACCGA CCAGGCCGAT ATGTTCTCCC	2700
TTGAGGAGAC GGAAGGACAC ATCTTCAAAA ATTGCACGGT CACCAAAACC GTGACTCAGA	2760
TTTTTAACCT CTAATACT CATTTTAATT CCTTACCTG TTTTMTGTA ATCGTTTATA	2820
AAGGAGCCAA GCCAGATAGC CACCAAAAGT GTTGGTCCAC AAATCATCAA TCTCAAAGAC	2880
CGGATTGAAA TCAAAGAAAA AGTCCAAGAT TAATTGCGTA CACTCGATTC CAAGACTCAC	2940
AAGAAAACATA AAAAGAAGGA CCTTTTTTCT TTTCCGAAA TTTGGAATA GATAAAGGAG	3000
TTGGAAAATC AGAGAAAAA ACAAGAAGAC ATTGAGGATA TTTTGTAAAA AAATCCAACA	3060
TAATTGTCCA ATGTCACTCA CTTCGCCAG TTTCCAGAGA GAATTGAAG GAGTCAAAAG	3120
AAAAACCAGG CGTCCAAGAT GCTGAATACC TGGAGTTCCC ACTCCCACGG TAGATTGTTC	3180
TTGAGGAGTA AAGCAAAAC AGACAATGCA AATGCTATAG AAAATGACTC CCCAGACCAA	3240
AATATGATTA TAAGTCTTCT TCATCATTA AAGTTTACC GTGCGACTGC CTTCTGGCGG	3300
TCACGTTTCAA TTGTGTTAGA GCGCAATTGT CCACAAGCTG CGTCAATATC TGTACCATGC	3360
TCTTGACGAA CCACACAGTT GACCCCTTTT TTCTTAAGCG TATCATAGAA AGCCAACACG	3420
CACCTCTTGG GACTACGGCT ATATTGGTCA TGCTCACTAA CTGGGTATTA AGGAATCAAG	3480
TTTACATAAG ACAATTTCTT GATGTTCTG AGCAATTCA TCAATTCCAA GGCCTGTCT	3540
ACACCGTCGT TGACTTCATT AAGCATGATA TATCAAAGG TTACAAGACG GTTTGTTGTC	3600
TCAAATGAGT ATTCAATAGC AGCAAAAGAT TTTTCAATCG GAAAGGCACG GTTAATCTTC	3660
ATGATACTTG AACGAAGTTC ATTTGTTAGT GCGTGAAGAG ACACGGCAAG ATTGACCTGA	3720
ACCCCTTCAT CAGCAAAATC ACGAATTTTA TGAGCCAAAC CTGAGGTTGA AACCGTATG	3780
TGACGAGCAC CGATAGCCAT TCCTTTATCA TCATTGATAG TACGAAAGAA ATTCAGACA	3840
TTGTGTAAT TATCAAAGGG CTCACCGATT CCCATGACAA CGATATGGCT GATGCGTTCA	3900
TCCTGACCAC GCTCATCAA GTATTCTGA ACCAGCATGA TTTGCGCTAC GATTTCACCG	3960
TTATTGAGGT CACGTGCTT CTTAATCAAA CCAGAGGCAC AGAAGGTACA ACCGATATTA	4020
CAGCCGACCT GAGTGGTCA CAGACAGAT AAACCATAGT GTTGACGCAT GAGTACAGTC	4080
TCAAATTAACA TACCGTGGG CAATTCAAAG AGATATTGA CTGTACCATC AGCAGACTCT	4140
TGCACATAC GTTTTTCAA GGGATTGACC ACNAACTGGT CATTGAGCTT AGCAATCAAA	4200
TCCTTGAAA GGTGTGTCAT TTCTTCAAAAT GACTGCACAC GTTTACGTA GAGCCATTC	4260
CAGATTGAT CTGCACGAA TTTCTTTTCT CCCTGCTCCA ATACCCATTC CTGCATGGTT	4320
TGAGTACCA AACTATGAAT TGAGGGTTTC ATTCTTCTC CTATCTCTCT ACTCACTCTCT	4380

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GACGAATGAC AAAATGACGT TGTCCCTGT CGCTCTCTG ACGACGCTA TTTTCTTAT	4440
CTGCATTCGA CTTCGTTTA GTTTGAGTCG GTTCTTTCC TTTCTAGAA GGTGTTCTT	4500
CTCCGCTCTT ACGCATTTTC TTGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA	4560
CAAAATAGCG ACAACCATAA CTACAATACT CTAAGAGTA GTCTTGTAAA CGACTGATTT	4620
TTTCAAGTTT TTCTCTGTT CGGTCACTCT TGTAAAACC TCGTAGGCGA AGCTGTTCTG	4680
TGCTCCAGTC CCCCACGATA TAATCAAAT TGGTTAATAC TTCTGAAAA CGCTGATTAA	4740
AGTCGTGAC ATCAAAGGCA TCCTTGATAT TTTCAACCA GGAJAAAGCT ATCCCTTCGG	4800
TTTCGACCTT GTCCCGGTGT AAATGGAAC CCGACACAG AAACCTGTTA TAGTTGTATA	4860
ATTCAAGTGC AATTCTTTTT CGCATAGATA TCTTTTTTC ACGATTACTT AATACTTTAT	4920
TCPACCATAA TTTCTAGCAG TTAGCAGCTT TCTCATAAA ATGAAAAAAG TCTGACGATT	4980
TTGTCAGACC AGAATCTTAT AACCTAAAA GAGAAGAACA ATTCTTCTCT CCAACTATCA	5040
TTATTATGCA GCTGCGTACA ATTCATCTAC TTATTTCCAG TTGATTACTG AAAAGAAAGC	5100
TTTGATGTAG TCAGGACGCA CGTTGCGGTA TTTCAAGTAG TAAGCATGTT CCCAAGCTC	5160
CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTTGGTTTG CTGTTGAAGT	5220
CACCTCAAGT TTCCCTTCTT TGTGTACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT	5280
TGTTGCTGCT GCAGTGAAGG CTGCTTGGAA TTCTTCAAAT GAACCAATG TTGCATCGAT	5340
TGCTGCTGCC AGTCTGCTG AAGGAGCTGT TTTCTGGGA GTCATCAATT CCCAGAAAAG	5400
AGCTGTGTTT AAGTGTGCG CACCATGTTT GATAAGTGCT TGACGGATAT CAGCTGGGAT	5460
AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCAACG ATTTCAAGGT GTTTTCTAA	5520
AGCTGCATTG GCATTGTTGA CATAAAGTTT ATGGTGTT	5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6735 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAAATGTAA ATATCATATT GTTTTGCAC CCAATATCG TCGTCAAATC ATTTATGGCA	60
GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA	120
TCCATGAAGC GAATGCTTGT TCAGACCATTA TTCACATGCT TATCAGTATT CCTCGAAAC	180

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TTAGTGCTTC GTCCTCTATG GGCTATTAA AGGCAAGAG CAGTTTGATG ATTTTGTATA	240	
AGCATGCGAA TTAAAAATAC AAATATGGCA ATCGCAAGTT TTGGTGATGA GGCTATTATG	300	
TAGATACGGT AGGCGGTAAT CAGAAAGTGA TAGCTGAATA TATTCAGAAT CAATTACAAG	360	
AAGACAGAGT AGCAGACCAG CTCACGTTAT TCGAGTCAGT AGATCGGTTT ACTGGCGAAA	420	
TAAATAAGAG AAGTAACATA AGGTGCTTTA GCACTGCTC GGGAAAGTGG TGCGCGAGGA	480	
AGCTATTTCG GTGGGCGCTT GGCCTTGCC GGTAGAGCG GCTTATAGCC GCAGAACAAA	540	
CCACCAGTTC ACACGTGGTG TTTTGATTGA AAAAAGTTGA TACATAAAA TAAAGTCTA	600	
TATAAAGGAT GGTAAAAATC CTGTTGTCGG ATTTGGACAA TATCCTAAAT AGTTACAATA	660	
TATGCTCTAT ACTTTTCTTT AGGAGAAAGC TAGATGTACA GACGTTTGAG AGATTGAGG	720	
GAGGATCATG ATCTGCCCCA AAAGCAAATA GCTACAATAC TTTCGTTTAC AAATTCAGCT	780	
TATGCCAAAA TTAGAAGGGG TGAGCATGCG TTGACGGCTG ATGTATTGGT TAAACTCTCA	840	
GATTTCTATG ACGTCAGTAC AGACTATTGA TTGGGATTTGA CTGATTTTCC TGATAAAAT	900	
CGCTTTAGAA AATAATCTCC TCAATTTTCA AGAGTTTGA AATGAGTGAG ATTTTATTAT	960	
TGCCCTTTGA CAACTGAATA GCCTAAAAATG GTACTTTCCT CATTTTGTTGA GCAAAATTGA	1020	
ATGGCTCGCC ATGATAAGAG CGATTTTAAA ATCATCAATA AATAGAGCG ATACTTTATA	1080	
TGCCATGATA CAAATGATAT ACAATGATAC TTCTGACCGT TCAGCCTGCC AAGCTAAAG	1140	
AGCAGCAAGT GAAATCTTA TGATGACTTC ATCAGTCATG CCAAGTTGAA TGTGTAGATT	1200	
TGTTAGATAA ACGCAATTAA TCCTCAAAG GTTCCCGGAA CCTTTTGAAT TCTACAGAG	1260	
CATCACGTGG AGTGTGTAG CTGTGTGCTA AAAGCGTAAA AACCTTGGAA CGAAAGGAAT	1320	
AATAGACTTT CTGCGAAACA AAAATATAAT ACAATAAAC TATGAATGAT GAAGCAAGTA	1380	
AACAATTGAG CGATAGCCGT TTCAAGATCC TTGTAGGTGT TCAGCGCAGC ACTTTTGAAG	1440	
AGATGTTAGC TGTGTTAAAA ACAGCTTATC AACGTAAAG CACAAAAGGT GGACGAAAA	1500	
GCAAAATTAAG CCTAGACGAT CTCCTTATGG TAACTATTCA ATACATGCGA GAATAGAGCA	1560	
CTTATGAACA AATTGCGGCT GATTTTGGCA TTCACGAAAG CAACTTAATC CGTCGAGATC	1620	
AATGGGTGGA AGCAACTCTT ATTCAAAGT GTTTTACGAT TTCAAAATCT GCCTTAATTC	1680	
TGTAAAAACA GTAAATTCG AAGGATTGTA AGGTAGAGT TTTTTCCTT CTGAAAAAT	1740	
GGTATAATG CAATCAAAAC TAGAAAAATA AACGGAATT GGAACAGATT TGTCTGTATC	1800	
CTAGTAGAGT GGTGATACTA TGAAGATTAG TAAGAGGCAC TTATTAAATT ATTCCATCTT	1860	
GATTCCTTAC TTGCTTTTAT CTATTTTGGG CTGTATTGTC GTCTATTGGA CCACAGTGC	1920	
TATTTTAATT GAAGAGGCA AGAGCGCCTT GCAATTTGTT CGAAACCAAG GAATCTTTTG	1980	

GAITTTAGT	TFGATACTGA	TTGCCCTTAAT	TTATAAATPG	AGACTAGATT	TTTTGAGAAA	2040
TGAGCGACTA	ATCATTTTAG	TTATATTAAAT	AGAAATGCTT	TTATTGTTCT	TGGCTCGTTT	2100
TATTGGTATT	TCCGTAAACG	GGGCATACGG	TTGGATTTCG	GTTCGACGAA	TAACATTTCA	2160
GCCAGCTGAG	TACTTAAAA	TCATTATTAT	TTGGTATTTA	GCTCACCGAT	TCTCCAAACA	2220
GCAAGAGAAA	ATAGCTACTT	ATGAITTTCA	AGTTTGGACT	CAAAATCAAT	GGCTTCCCCG	2280
TGCTTTTAAT	GATTGGCGAT	TCGTTCTCTT	AGTTCGTATT	GGAGTTTGG	GAATTTTCCC	2340
TGATTTAGGA	AATGCCACTA	TTTTAGTCTT	GGTTCCCTTG	ATTATGTATA	CAGTTAGTGG	2400
AATCGCTTAT	CGCTGTTTT	CAACATTCT	GGCGCTCGTA	TCTGCCGCTT	CTGTCTTTGT	2460
CTTGACCCT	ATCAGCCTAA	TCGGTCTTGA	GACCTTTTCA	AAAAATCCAG	TATTCGGCTA	2520
TGTAGCCAA	CGCTTTAGTG	CCTTTTTTAA	TCTTTTGGC	GATCGTGCTG	ATGCAGTCA	2580
CCAGTTAGCT	AATTTCTATT	TTGCCATGGT	CAATGCGGTT	TGGTTTGGTC	TAGGTCTTGG	2640
AAACTCGATT	GAJJAAACGAG	GTTATTTGCC	AGAAGCTCAT	ACAGACTTTG	TCTTTTCTAT	2700
CGTGATTGAA	GAATTTGGCT	TTGTGGTGTC	CAGTCTTATT	TTAGCTCTCT	TGTTTTTCAT	2760
GATTTTGGCG	ATTATCTTGG	TCGGTATCCG	AGCGGAGAA	CCTTTCAATG	CCATGGTTGC	2820
ACTCGGTGTC	GGAGGGATGA	TGTTGGTTCA	GGTATTGTGC	AATATCGGAG	GGATTTCCGG	2880
CTTGATTCCA	TCTACAGGAG	TGACTTTCCC	CTTCTTATCC	CAGGGTGGAA	ATAGTCTTCT	2940
AGTCTTATCA	GTGGCAGTAG	CCTTTGTCTT	AAATATTGAT	GCCAGTGAAA	AACGGCGTAA	3000
ATTGTACCGA	GAATTGAAA	ATCAACCAAT	GAACCTTCTG	TTGAAGTAGG	ATAAAGAAAG	3060
GATAGTTTAT	GTCTCTTCAA	AAATTAGAAA	ATTATAGTAA	TAAAGTGTT	GTGCAAGGAG	3120
AAGTCTTGAT	TCTAACAGAA	TTACTGGAAG	ATATTACTAA	AAATATGCTT	GCCTCAGAGA	3180
CCTTTGAAAA	AATAATACAG	TTGAAAGAA	TATCAACGCA	GGAAGATTAT	CAAGTCTTAA	3240
ACCGTCTAGT	GACTAGCTTA	TCAAATGATG	AAATGCTCTA	TATTTCAAGC	TATTTCTCTA	3300
TCTTGCTCT	TTTGATTAAAT	ATTTTCAGAG	ATGTGGATT	AGCTTATGAA	ATCAATCATC	3360
AAJATATAT	TGATCAGGAC	TATTTAGGTA	AMTATCTAC	AACGATTAAA	TTGGTAGCAG	3420
AAJAGGAAAA	TGCGTTGAG	ATCCTAGAAC	ACTTGAATGT	TGTCCCTGTT	TTGACAGCCC	3480
ATCCAAACACA	AGTGCAACGC	AAAAGTATGT	TGGATTTAAC	AAATCATATT	CATAGTCTTT	3540
TGCGTAAATA	CCGTGATGTT	AAGTTGGGGT	TGATCAATAA	AGATAAATGG	TACAAATGATT	3600
TGCGTCGTTA	CATCGAAATT	ATCATGTCAGA	CAGACATGAT	TCGTGAGAAA	AAATTAAGAG	3660
TGACTAACGA	AATCACGAAT	GCTATGGAAT	ATTATAACAG	CTCCTTTTGG	AAAGCTGTAC	3720

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CTCATTGAC GACGGAGTAT AAGCGCTTAG CGCAGCGCA TGCTCTGAAT TTAAACAGG	3780
CTAAACCAAT CACCATGGGT ATGTGGATAG GTGGTGACCG TGATGGAAAT CCAATTGTGA	3840
CAGCAAGAC CTTGAAGCAG TCTGCACTCA CTCAGTGTGA AGTCATCACTG AACTACTATG	3900
ATAAAGAGT TFACCAACTT TATCGTGAAT TTCTCTTTT AACTAGCAIT GTCAACGTCA	3960
GCAAGCAAGT CAGGAAATG GCTCGTCAAT CCAAGGATAA CTCGATTTC CGCGAAAAG	4020
AGCTTACC GCTGCTCTG TTTGATATT AATCAAAAT TCAGGCAACT AAAACCTATC	4080
TGATTGAGGA TGAAGAAGT GGGACTCGTT ATGAAACCG CAATGATTTC TACAAGGATT	4140
TGATTGCCAT TCGAGATTCT CTACTAGAAA ATAAGGGCGA GTCCTTGATT TCAGGTGATT	4200
TTGTGGAATT ATTGAGGCA GTAGAGATAT TTGGTTTTTA CTTAGCATCA ATTGATATGC	4260
GACAAGACTC TAGCGTCTAT GAAGCCTGTG TGGCAGAACT CTTGAAATCA GCAGGAATTC	4320
ATTCTCGTGA TAGCGAGTTG AGCGAAGAA AAAAGTGTGA CCTTCTCTTG AAAGAATTAG	4380
AAGAAGATCC CCGAATCTT TCTGCGACTC ACGCAGAAAA ATCAGAATTA TTAGCAAAAG	4440
AATTAGCTAT TTTTAAGACG GCTCGTGTIT TGAAGATAA GTTGGGAGAT GATGTCAATC	4500
GTGACACCAT CATTTACAT GCAACCAAGC TTTCTGATAT GCTAGAATTA GCTATTCTGT	4560
TAAAAGAGT AGGACTGGTG GATACGAAA GGGCGCGTGT TCAGATTGTT CCCCTTTTGT	4620
AAACAATTGA AGACTTGAT CATTCAGAGG AAACAATGAG AAAATATCTT TCTCTTAGCC	4680
TTGCCAAAA ATGGATTGAC TCACGAAATA ACTACCAAGA AATCATGCTT GGCTACTCTG	4740
ACAGTAATA AGATGGCGGT TACTTGTTCAT CATGTPGGAC CCTTACAAG GCTCAACAAC	4800
AATTGACTGC TATTGGAGAT GAATTTGGCG TTAAGGTAC CTCTTCCAT GGTCTGGTG	4860
GCTCTGCG TCGTGGTGGT GGGCCAACTT ATGAAGCCAT TACATCTCAA CGCTCAAGT	4920
CTATCAAGGA TCGTATCCGC TTGACGAGC AGGGTGAAGT AATTGGGAAT AAATACGTTA	4980
ACAAAGACG CGCTTACTAT AACCTTGAAA TGCTAGTATC GGCAGCTATT AACCGTATGA	5040
TTACTCAGAA GAAGAGCGAT ACCAATACCC CAAATCGTTA TGAACCAAT ATGGATCAAG	5100
TAGTGGACCG TAGTTACGAT ATCTACCGTG ATTTGGTCTT TGGTAATGAG CATTTCTATG	5160
ATTATTCTTT CGAGTCAAGT CCAATCAAGG CTATTTCAG TTTTAATATY GGTTCCTGTC	5220
CAGCCGCTGC TAAAGCTATT ACTGAATCG GTGGTTTGGC TGCCATCCCT TGGGTATTCT	5280
CATGGTCA CA GAGTCGTGT ATGTTCCCTG GATGGTACGG GGTGGTTCA AGCTTCAAGG	5340
AATTTATCAA TAAAAATCCA GAGATATTG CTATCTTACG AGATATGTAC CAAAATTGGC	5400
CTTCTTCCA ATCGCTCTT TCAAATGTTG ATATGGTTTT GTCAAAATCA AATATGAATA	5460
TTGCTTTTGA ATATGCTAAA CTTTGTGAAG ACGAGCAAGT TAAAGCCAATCATGAGACTA	5520

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TTTTAAATGA ATGCAAGT ACTAAGAACG TTATCTTGGC TATTGAAGGA CATGACGAAC 5580
 TCTTAGCTGA CAATCCATAT CTAAAAGCTA GTCTGGAITA CCGTATGCCT TACTTTAATA 5600
 TTCTCAACTA TATTCAAGTTG GAGTTGATTA AACGCCAACG TCGTGGAGAA TTGTCCAGTG 5700
 ATCAAGAACG ATTGATTCAT ATCACCATCA ACGGAATTGC GACAGGATTG CGTAATPCAG 5760
 GTTGATTAAT TTCAAGAGTG AATGCTAAJA GTGAATATCA AAAAAATTCT AATGACTAT 5820
 TGCAAGTAG TTTAAAAATG ATATAATTTA ACCATTTCAGA AAGTAATCA TACAAACTTT 5880
 TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT ATGCAAAATF GGGCTGAATG 5940
 CTAMTTAGAA TTIGAAATTA TAAAAATTCG GTAAGCACAC CTTACAGTGC ATCTCGTTAT 6000
 TCGGAGACTG ACGCATAGGG AAATTCCCTA TAAITGAGGT GGTACCGGCG ATCGACGTCC 6060
 TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAAAGAT 6120
 GGCCTGCTTT GTTTAGATAA GTGAATATG TTAAGGAAA TAAAGAGAG AAACAGAAATG 6180
 AAAAAATAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG 6240
 ATTTATTCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAATAAACC 6300
 AAGATTGGTG TGCCTCAATT TGTAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC 6360
 CAAGATGGAC TTGCAGAAGA AGGATATATA GATGATCAAG TTAAATTTGA TTTTATGAAC 6420
 TCAGAAGGTG ACCAAAGTAA GGTGCGACA ATGAGTAAC AATTGTTGC AAATGGGAAT 6480
 GACCTTGTGC TTGTTATGCG AACACCAGCA GCCAAGGGT TGGCTAGTGC AACAAAAAGC 6540
 CTACCGGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAACCTTGT TAAAGATTTG 6600
 AAAAAACAG GTGGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAAGT 6660
 GAATCATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAGTAGC 6720
 GAAGACAAAT CAAA 6735

(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 6516 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CTAGAOCATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAGTTGCC CCGTTGAACG 60
 CAGCAAGGCT ATGTACGGTG GAACTTGTAT CAACATTGGT TGTATCCCAA CTAAAACCTT 120

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GCTAGTTGCT GCTGAAAAGG ACTTGTCTTT TGAAGAAGTC ATTGCTACTA AAAACACGAT	180
CACGTGTCGC CTCACGGTA AAAACTATGC GACTGTTCGT GGTACAGCG TAGATATCTT	240
TGATGCGGAA GCTCACTTCC TTTCAAATRA AGTCATCGAA ATCCAAGCTG GTGATGAAAA	300
GAAAGRACTG ACTGCTGAAA CAATCGTCAT CAACACTGGT GCTGTTTCAA ACGCTTTGCC	360
AATCCCTTGA CTGTCTACAA GCAAAAACAT CTTTGACTCA ACAGATATCC AAGCTTTGGA	420
CAAAATTACCT GAAAAACTTG GAATCCTTGG TGGCGGAAT ATCGGTCTTG AATTGCGCG	480
CCTTTACAAC AAACCTTGAA GCAAGGTCAC AGTCCTAGAT GCCTTTGATA CATTCTTACC	540
TGCTGCAGAA CCTTCCATCG CAGCTCTTGC TAAACAATAC ATGGAAGAAG ATGCAATTGA	600
ATTGCTTCAA AATATCCATA CTACTGAAAT CAAAAACGAT GGTGACCAAG TGTCTGTCT	660
AACTGAAGAC GAAACTTACC GTTTCGACGC CCTTCTCTAC GCAACTGGAC GCAAACCAAA	720
TGTAGAACCA CTTCAACTTG AAAATACAGA TATTGAATA ACTGAACGTG GTGCTATTAA	780
AGTAGACAAA CACTGTCAAA CAACGCTTC TGGTGTCTTT GCAGTTGGAG ATGTCAACGG	840
TGGCCTTCAA TTTACTTACA TTTCACCTGA TGACTTCCGT GTTGTTTACA GCTACCTTGC	900
TGGAGATGGC AGCTATACAC TTGAAGACCG TCTCAATGTG CCAATACTA TGTTCATCAC	960
ACCTGCACCT TCACAAAGTG GTTTGACTGA AAGCCAAGCA GCTGATTTGA AACTTCCATA	1020
CGCTGTATAG GAAATCCCC TTGCAGCAAT GCCTCGTGGT CACGTAAATG GAGACCTTCG	1080
CGGTGCCTTC AAGACTGTGG TCAATACTGA AACAAAAGRA ATTCTTGGAG CAAGCATCTT	1140
CTCAGAAGGT TCTCAAGRAA TCATCAACAT CATCACTGTT GCTATGGACA ACAAGATTCC	1200
TTACACTTAC TTCACAAAAC AAATCTTCAC TCACCCAACC TTGGCTGAGA ACTTGAATGA	1260
CTTGTTTGCG ATTAAAGTGG AGATTTAATC GTATCGAACA GCCCTCTTTG GCGTGTTTTT	1320
ACTTCTGCGG AATCTCAAA CTGTCTTTCT CCTCTTTTAT GATATAATAG AAACATGAAC	1380
TTAAAACTA CTTTGGGCTT TCTGTCTGG CGTCTTCCC ACTTCGTTT AAGCGTCTT	1440
GGACGTGGAA GTACGCTCCC AGGGAAGTC GCCCTTCAAT TTGATAAAGA TATTTTACAA	1500
AACCTAGCTA AGAACTACGA GATTGTGGT GTCACTGGAA CAAATGGAJA AACCTGACA	1560
ACTGCCCTCA CTGTGCGCAT TTTAAAGAG GTTTATGGTC AAGTTCTAAC CAACCAAGC	1620
GTGCGCAACA TGATTACAGG GATTGCAACA ACCTTCTTAA CAGCCAATC TTCTAAAACT	1680
GGGAAAAATA TTGCGTCTCT CGAAATTGAC GAAGCCAGTC TATCTCGTAT CTGTGACTAT	1740
ATCCAGCCTA GTCTTTTTGT CATTACTAAT ATCTCCGCTG ACCAGATGGA CCGTTTCGGT	1800
GAAATCTATA CTACCTATAA CATGATATTG GATGCCATTC GGAAGTTCC AACTGCTACT	1860
GTTCCTCTTA ACGGAGACAG TCCACTTTTC TACAAGCCAA CTATTCCAAA CCCTATAGAG	1920

TATTTTGGTT TTGACTTGGG AAAGGGACCA GUCCAACCTGG CTTCACTACAA TACCGAAGGG	1980
ATTCTCTGTC CTGACTGCCA AGGCATCCTC AAATATGAGC ATAATACCTA TGCAAACTTG	2040
GGTGCCATATA TCTGTGAAGG TTGTGGATGT AAACGTCTCT ATCTCGACTA TCGTTTGACA	2100
AAACTGGTGT AGTTGACCAA CAATCGCTCT CGCTTTGTCA TAGACGGCCA AGAATACGGT	2160
ATCCAAATCG GCGGGCTCTA TAATATCTAT AACGCCCTAG CTGCTGTGGC CATCGCCCT	2220
TTCTTAGGTG CCGATTCCGA ACTCATCAA CAGGGATTTC ACAAGAGCCG TGCTGTCTTT	2280
GGACGCCAAG AAACCTTTCA TATCGGTGAC AAGGAATGTA CCCTTGTCTT GATTAAAAAT	2340
CCAGTCGGTG CAACCCAAAG TATCGAAATG ATCAAACTAG CACCTTATCC ATTTAGCTTA	2400
TCTGTCTCTC TTAATGCCAA CTATGCAGAT GGAATTGACA CTAGCTGGAT CTGGGATGCA	2460
GACTTTGAAC AAATCACTGA CATGGACATT CCTGAAATCA ACGCTGGCGG TGTTCGTCTA	2520
TCTGAAATCG CTGTCGCTT CCGAGTGACT GGCTATCCAG CTGAGAAAAT CACTGAAACG	2580
AGTAATCTGG AGCAAGTCTT CAAGACCATT GAGAAATCAAG ACTGCAAGCA TGCCATATATT	2640
CTGGCAACTT ATACTGCCAT GCTGGAAATT CGTGAATGCG TGGCTAGTCG TCAGATTGTT	2700
AGAAAGGAGA TGAACATAAG GTTTATACTT CACTTTCTCT AAAGATGGC AATTACCCCT	2760
ATCAGCTCAA CATTGCCCAAC CTCACGGAA ATCTCATGAA TACACGGGG ACAATGGAAG	2820
CATCTCTATG CTCAGTATG TGCTGAAAA ACTGGGAGCC CATGTGACCG TTGACATCGT	2880
TTCTCTCCAT GATGACTTTG ATGAAATCA CTAGACATC GCCTTTTTCG GTGGTGGTCA	2940
AGACTTTGAA CAAAGTATCA TTGCAGACGA CCTACCTGCT AAAAAAGAGA GCATTGACAA	3000
CTACATCCAA AACGACGGTG TAGTTCTGGC TATCTCGGT GGTTCCAAC TATTGGGTCA	3060
ATATTATGTT GAAGCTTCAG GAAAACGTAT CGAAGGCTA GGGTCATGG GACACTACAC	3120
GCTCAACCAG ACCAATAACC GTTTTATCGG TGACATCAAG ATTCACAAAG AAGATTTCGA	3180
TGAAACCTAC TATGGATTTC AAAATCACCA AGGTGCTACC TTCTCTCTCG ATGACCAAAA	3240
ACCGCTGGGA CAGGTTCCTT ATGAAATGG AAACAAAGAA GAAAGGTCG GTGAAGGGGT	3300
TCATTATAAG AATGTCTTTG GTTCTACTT CCACGGGCTC ATCTCTCTCT GTAATGCCAA	3360
TCGTGCTTAT CGCCTAGTTA CTACTGCCCT CAAGAAGAAA TATGTGTCAG ACATCCAAC	3420
CCCTGCTCAT GAGGACATTC TCAGCCAAAG AATCGTGAA GAGTACAGTG ACGTCAAAAG	3480
CAAGGCTGAC TTTTCTTAAA CAAAGGAAAA TGATATCAAA GAACTCCGTT ATCTGTGTCG	3540
AGTTTCTTGT CTCTTTCTTT ACCCTTCTCC CTGCAATTTT CTCTCATTTT TTGCAAAAAT	3600
AGAGGGTAG AAAGAAAGTA GCATATGTCT AAATTACAAC AAATCCATAAC ATATCTTGAA	3660

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TCAGAAAAAC TAGACGTCGC TGTCGTATCT GACCCCGTCA CAATCAATTA CCTCACTGGT	3720
TTTTACAGTG ATCCCATGTA ACGCCAAATG TTCTCTTTG TCCTAGCAGA TCAGGAACCT	3780
CTCCTCTTTG TCCCACTCT TGAAGTAGAA CGTGCAAGTA GCACCGTTTC CTTCCAGTA	3840
GTGGGCTATG TCGATTCTGA AANTCCATGG CAAAAAATCA AACATGCTCT TCACAACTT	3900
GACTTCAAAAC GTGTCGCTGT TGAGTTTGAC AATCTCATCT TGACCAAATA CCATGGTTTG	3960
AAAACAGTTT TTGAGACTGC TGAGTTTGAC AACCTCACTC CTCGTATCCA ACGCATGCGC	4020
CTCATCAAT CAGCTGATGA AGTGCAAAAA ATGATGGTTG CAGGTCCTTA TGCTGACAAG	4080
GCTGTTCAATG TTGGTTTTGA CAATATTTCT CTTGATAAGA CTGAGACAGA TATCATCGCA	4140
CAAAATGACT TTGCCATGAA ACGTGAAGGT TATGAAATGA GCTTTGATAC CATGCTCTTG	4200
ACTGGTGATA ATGCTGCGAA TCCACACGGC ATTCCAGCAG CTAATAAGGT TGAAAATGAT	4260
GCTCTCTCC TCTTTGACCT GGGTGTTCTG GTCAATGGCT ATGGGTGAGA TATGACTCGT	4320
ACAGTGCCTG TCGGCAAAAC AGACCAATTC AAGAAAGATA TTACAACCT GACTCTTGAA	4380
GCCCAACAAG CTGCTCTTGA CTTTATCAAG CCAGGTGTGA CTGCTCATGA AGTGGACCGC	4440
GCTGCCCGTG AGGTCAATGA AAAAGCTGGT TATGGTGAGT ACTTCAACCA CCGTCTCGGG	4500
CATGGTATCG GTATGGATGT CCATGAATTC CCATCTATCA TGGAAAGAAA CGACATGGTC	4560
ATCGAAGAAG GCATGTGCTT CTCTGTTGAA CCAGGTATCT ATATCCCTGG TAAAGTCGGT	4620
GTTCGTATTG AAGACTGCGG TGTGTTTACC AAGGATGGCT TCAACCTCTT TACAAGCACC	4680
AGCAAGGATT TGCTTTATTT TGATTAAGCT ATATAGCCCC TATGCTTTCC TTTCAAAATA	4740
TCTAGGGGCT ATTTTATTTG CATTTTCTTG CTATTATGCT AAAGAAATG GCTGCAATAA	4800
CTCAACCTA AGTGCTTGA ATGATAACGA GGGTGCTCTC CGCTTTTATC AAAGACAAGG	4860
GATGAAACCC CAAAGAAACA CAATGGAAAT GATAATTGAT TAAGAAGTCA TCTATCAAAA	4920
GATGTTAGAA AAAGTTCAAT TTCACTAGAA AATGAGGAAA ATCTCCCCAC AATAAAACGC	4980
ATAGTATCAG GTATTGTGTA CTGACCCCAA ACAGTTAGAC AATTAAATTA TCCGAAGGAT	5040
TTAGTCTGT ACTGCACAGG ACTAAGTCCT TTTAGTTTTA CCTTAATTGC TTTGTGTTG	5100
TAGTATCAJA TATAGCTTAT AATGACTTGT TCCAATTGGT TAAGTGATTT AAATGTTTTG	5160
TCATAGCCAT AAAACATTTC GSATTTTAAA ATGCCAAGA AAGATTCAT CATACCGTTG	5220
CTTTGCTGT TTCCCTTGG TGACATAGAT GCTTGAATTC CCTTATTCTC TAGGAACCGA	5280
TGATAAAGAT CGTGTTGGTA TTGCCAGCCT TGGTCACTAT GGAGAAATCG ATTCTGTAG	5340
TGCTTCTCTT TGAATGCCTG TTCCAACAAT GTTTGTACTT ATTCTAAATT AGCGAACAA	5400
GAAGATTA AAGCAATAAT TTGCTGTTA AAGCCATCTA AAATGGTGA TAAGTAAAGC	5460

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TTTCGAGTAC TTGCTGGAAT GGCAAATCA GTACATCTG TGTAGCACTT TTCCATTGTT 5520
 TTAGAGCCTT CAAATTGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA 5580
 TGAGAAGAA ATTTTCGTTT CTTTCGCATT TTAGCTTOTA AATTGAGTAC TTTCATCAAG 5640
 CCTTGAACTC TTCTATGATT TACCAGATAA CCACGATTTC TTAGTTCTAA ATGAACCCGG 5700
 CGATAAGCAT AATTTCCTTT GTGTTTGATA AAGATGGATT GAATTTCACT TTTAAGCTCT 5760
 TGGTCTTTAT CTGTTTGTCT TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT 5820
 TTAATGCTTT CTAGAAGAG ATCTAACGAA AACTCAGTCA TTAATCTTGG AACAAATTTCT 5880
 GTCTTCTTTC TTCTCTTTT TCCTCCTTCA ATCCGAGTTC TCTTAACTTT TTTAGGATGG 5940
 CATTCCTCCG TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTC 6000
 CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCCCA TTCAAGAGAA 6060
 ACTCTATCTT TAGTCCAGCC TTCATGTCAG ACTTTATTAA CCCCCATTAT TCACCCCAA 6120
 TCTAAAAACC ATCCAGAATC CTTCCTTAG CTTAGATCCT GGATGGTTTC TTTTTCACC 6180
 CAATGGGTGT TTTTACTAG ACAAJAJAGA GTTTCCTT TATGOTATAA GTGTAGAAAA 6240
 AAACACAAAA AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA 6300
 GTCTTTTAC CAACTATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT 6360
 TTTTCAGGAA CTTTTTCCC AGTTGAJAAT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC 6420
 GAATGAAACA CCGCGTACT GTCGTTATTC GGATTCAGAT ATCCWGTCC AGTTCTCTT 6480
 TCAACTGTTA ACAGGTTATG GAACGATAA TGCTTG 6516

(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TTTTCAACCC ATATCTGGC TCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT 60
 TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAC AACTCATCCA CTGGGACAT 120
 ATCTTATGCT ATACTGTTCG ATACTCTCTC TTTTCACTTT CTTTGTAGC AATTATTTT 180
 CTGATTAATT TCGGTATCC TGTAGATATG GTCAATTAAT TGCCATTTTT GATTAATACT 240
 GGTTTGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTGTCTT CACAAAAGAT 300

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AGCATTTTCT	ATGAATTTT	AAACCATGTC	CTAGCCTTAA	AAAATAAAIT	TAAAAATCA	360
TAGGAGTTTA	AAATGRAACA	ACTAACCOTT	GAAGATGCCA	AACAAATTGA	ATTAGAAATT	420
TTGGATTATA	TTGATACTCT	CTGTAAAAAG	CACAATATCA	ACTATATTAT	TAACATACGGT	480
ACTCTGATTG	GGGCGGTTTG	ACATGAGGOC	TTTATCCCTT	GGGACGACGA	TATTGATCTG	540
TCCTATGCCA	GAGAGACTTA	CCAACGATTT	ATTACATTTT	TTCAAAAGGA	AAAAAGCAAG	600
TATAAGCTCC	TATCCTTAGA	AACTGATAAG	AACTACTTTA	ACAACTTTAT	CAAGATAACC	660
GACAGTACGA	CTAAAAATTAT	TGATACTCGA	AATACAAAAA	CTATGAGTC	TGGTATCTTT	720
ATCGATATTT	TCCTATAGA	TCGCTTTGAT	GATCCTTAAG	TCATTGATAC	TTGTTATFAA	780
CTGGAAGCT	TCAAACCTGCT	GTCTTTCACT	AAACATAAAA	ATATTGTCTA	TAAGGATAGC	840
CTTTTAAAAA	ATTGGATACG	AACAGCCTTC	TGGTTACTCC	TTGACCCGGT	TTCTCCTCGT	900
TATTTTGCAT	ATAAAATCGA	GAAAGAAATT	CAAAAATATA	GTCCGTAAAA	TGGCAATAT	960
ATGGCTTTTA	TCCTTCAAA	ATTTAAGGAA	AAGGAAGTCT	TCCCAAGTGG	TACCTTTGAT	1020
AAAACATCG	ATTACCCCTT	TGAGAAATTA	AGCCTTCTCG	CACCTGAAAA	ATTTGATACT	1080
ATTTTGACAC	AATTTTATGG	AGATTATATG	ACCTTACCAC	CAGAAGAAAA	ACGCTTCTAC	1140
AGTCATGAAT	TTACAGCTTA	TAAATTGGAG	GATTAGGATG	CAATATTTAG	AAAAAAAGA	1200
AATTAAAGAA	ATTCAACTAG	CCCTGCTGGA	CTATATTGAT	GAGACTTGTA	AGAAACATGA	1260
TATTCCTTAT	TTTCTCAGTT	ATGGAACCAT	GCTTGGAGOC	ATCCGCGACA	AAGGTATGAT	1320
TCCTTGGGAT	GATGATATTG	ATATTTCCCT	TTATCGTGAG	GATTATGAGC	GTTTACTGAA	1380
GATTAATTGAA	GAAGAAAAATC	ACCCTCGCTA	CAAGGTTCTT	TCCTACGATA	CATCTTCTTG	1440
GTACTTCCAT	AATTTCCGAT	CGATTTTGGG	CACCTCTACT	GTTATAGAAG	ACCATGTTAA	1500
GTACAAGGAT	CATGATACCA	GCCCTTTTCA	CGATGCTCTC	CCAATTGATC	GATTTACAGA	1560
CTTGAGCATT	GTGCAACAGA	GCTATAAGTA	TGTGGCTCTT	CGTCAACTAG	CTTATATCAA	1620
AAAATCAGGA	GCAGTTCACG	GTGATAGCAA	ACTAAAAGAT	TTTCTTAGAT	TATGTAGCTG	1680
GTACGCTCTC	CGATTTGTCA	ATCCTTCGCTA	CTTTTACAAG	AAAATTGATC	AACTAGTCAA	1740
AAATGCTGTA	ACCAACACTC	CTCAATATGA	AGGAGAGGTT	GGGATCGGTA	AGGAAGGGAT	1800
GAAGAAGATC	TTCCCAAGTG	ATACCTTTAA	AGAACTGATT	TTAACTGAGT	TTGAGGGCCG	1860
TATGTTGCCT	GTCCCAAAA	AAATATGACCA	ATTTTAAACC	CAGATGTATG	GCGATTATAT	1920
GACACCACCA	TCAAAAGAAA	TGCAAGAGTG	GTATAGTCAT	AGCATTAAAG	CTTATCGCAA	1980
AAACTGATTG	AGGGGGATTA	TACAACTAC	TAAGATAGAG	GTATTCAAAA	AACATAAATT	2040
TAGTAGAAAA	TGAAATACAT	ATTCCACAAA	TAAAACGCAT	CATATCAAGG	TTTTTGAAAA	2100

ACCTTGATAT	GAIGGTTTT	ATAATTTTAA	AGACTTTTT	CTATAGTAGA	TTGAAATAAG	2160
ATGCGAACA	ATCAATTAGA	AAATTCAAAT	TAATTTATAG	AAATATTTTA	GTATTCCTGT	2220
GTACTGTTCT	AAATTCAGTC	TGCTATATCT	TATTTTTCTA	TTTAAATCGC	TTCTGTAAACA	2280
AAGCTACGAC	TTTCAAGTAC	CTTAAGCATG	GCATTAGCTG	TATCTAGCGC	TGTGAAGAGG	2340
GGCAGCCCGT	GTTCAAATGCC	TGAACGACGA	ATTTGCTCAC	CATCTTCGTC	AGCAGTTCGT	2400
TTTGTTCTTA	CTGTGTTAAT	GATAGCTTGA	ATTCTTCCTT	TGCGTACAAA	ACTTGGGATA	2460
TCCCTATCGT	CATCACCAAT	CTTACCAACA	GGTTGGGCTT	GCAAGCCATG	ACTAGCAAG	2520
AAGGCTGTGT	TCCCTTCTGT	CGCAAGGATT	CCATAACCAA	TGTTTTGGAA	ACGACGAGCC	2580
AAGTTCAAGG	CTTCTTCTTT	GGCATCATCA	CGGATGCTAA	AGACGACATT	ACCAAAAGTT	2640
GGCAAGTGTA	GATAAGAAGC	TTCAAAGGCT	TTATAGAGAG	CTTTTTCCAA	AGTAGCATCA	2700
GAACCCATAA	CTTCACCTGT	TGACTTCATT	TCAGGACCGA	GCAAGCTGTC	TACCTTAGCT	2760
AGTTTGGTAA	AGGAGAAGAC	AGCTGCCTTG	ATATGAACAC	GGGTGCTTTC	AGGGTAAAGT	2820
CCATTTTGTT	AGCCAAGTTC	TGATAAACTT	TGACCAAGAA	TGAGTTTGTT	CGCTACTTGA	2880
GCCATAGGAA	TATTTGGTTAC	CTTAGATAGG	AATGGAAACG	TACGGCTGGC	ACGTGGATTG	2940
ACCTCAATAA	CGTAGACTTT	TTCACTCCTG	ATAACAAACT	GGATGTTTCA	CATTCCAAAG	3000
CAGTGAAGAC	CGATTGCTAA	GGCTTTGGTG	TAGTCTCGGA	TGCTCTCCTG	AACCTTTTTC	3060
GACAAGGTTT	GTGTTGGGTA	AACAGCCATT	GAGTCACCTG	AGTGGACACC	AGCACGTTTG	3120
ATATGCTCCA	TGATACCAGC	AATGAGTACA	TTTTTACCAT	CTGAAATGGC	ATCAACTTGG	3180
CACCTCTGCC	CAACGATATA	AGAGTCGACA	AGAACTGGGT	GGTCTGGACT	AGCCTTAACA	3240
CGAGTTGGCA	TGTAAGAAAG	AAGGTCTCTT	TGCTTTTCAA	CGATTTCAT	GGCACGTCCA	3300
CCAAGTACAT	AAGATGGGCG	GACAAGAACT	GGGAAACCAA	TCTTTCGAGC	TGCAAGAGCT	3360
GCTTCTTCTT	CATTGTATGC	CGTTTGTCTT	GOTGGCTGTG	GAATATCCAA	TTCTTTTGAGA	3420
GCTTGTGCGA	AGAGCTCAAG	GTCTTCGGCA	CGATCTAGGT	CAGCAACCTG	TGTATCCAAG	3480
ATGGTCACAC	CTGCTTTTTC	CAATGGCTCC	GCAAGGTTGA	TGGCTGTTTG	ACCACCGAAC	3540
TGAACGATAA	CTCCCTTTTG	TTGTTCCTCA	TCAATGACGT	TCATAACATC	TTCTGAATGTC	3600
AATGGCTCAA	AGTAAAGCTT	ATCTGATACA	GAGAAGTCTG	TTGAAACGGT	CTCTGGGTTT	3660
GAGTTCATGA	TGATAGCTCT	ATAACCAAGT	GCTGGATAG	CCTTAAACAG	GTGAACGGTT	3720
GCCTAGTCAA	ACTCAACCCC	TTGACCGATA	CGGATTTGGC	CTGAACCTAG	GACAAGTACA	3780
GATTTCTTAT	CAGATCTGAT	AGATTCAATT	TCCCAACCAT	AGGTTGAATA	GAAATATGCG	3840

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GCTTCGGAGT CGAACTCTGC CGCACAAATG TCTACCATCT TATAAACTGG AACAACTCTG	3900
TTTTCCAAAGC GAAGTTGGCG AACTTTATCA TCAGTCGTTC CCCAGAGTTC AGCAATCTTA	3960
CGGTCTGAAA AACCAATTAAG TTTGGCTGTT TTCAAAACTTT CTAAATCTTG TGGATGAGCA	4020
CCCAATTCTT GCTCAATTTC AAAGATATGC AAGAGTTTAT CAAGATAGAA GATATCAATT	4080
TTTGTAGACT CTGCAATTTC TTCAAGTGTG TACCCACGAC GAATGGCTTC TGATACGTAG	4140
AAGAGACGGT CATCTTGGGC TTGACAACC TTTTCAATCA AGGCATCATC AGAACTGCT	4200
GCAGTTCAG GTATTTCAIT GTGGTGCACC CCAATTTCAA GGGAGCGGCA GGCCTTGAGA	4260
AGAGATTCTT CGATGTTACG ACGGATTGCC ATGACTTCTC CAGTCGCCTT CATTGTGTA	4320
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ACGTAGTCAA GGGCTGGTTC AAACATGGCA TAGGTTGAAC CTGTAACCTG GTTTATAACC	4440
TCATCCAAGC TCAAACTTAC TGCAATCTTG GCAGCCAAC TAGCAATCGG ATATCTCTTC	4500
GCTTTAGAG CAAGGGCTGA CGAACGTGAT ACACGAGGGT TTACTTCGAT AACATAATAC	4560
TTGAAGCTGT TAGGATCAAG AGCTAGCTGA ACATTACATC CACCTTCAAT CTTGAGGGCA	4620
CGAATAATGC TCAAGCTCGC ATCAGCAAGC ATTTGGTTTT CATAGTCTGA CATGGTTTGC	4680
GCAGGGGCAA ATACAAATGA ATCCCCTGTG TGAATCCCAA CTGGGTCAA GTTTTCCATG	4740
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AAACCGGCAA TCGAACGCTC AATCAACAT TGGGTAAAC GTGACAATT CAAACCATTT	4860
TCAGTGATT TACGCAATTC TTCTCGTTG GCACACATAC CACCACCAGT ACCACCAAG	4920
GTAAAGGCTG GACGAACGAT GACTGGGTAG CCAATTGTGC CTGCAAGGC AACTGCTTCT	4980
CTACTGTGT TAACAATTC AGATTCTGA ATGGGTGTT CAAGCTCTTC CATCAATTGT	5040
TTAAAGAGGT CACGGTCTC CGCTTGGTCA ATGGCAGATA ATTTGGTACC CAGAAATTCA	5100
ACGCCAAGCT CGTCTAGGAT ACCATTTTGA GATAATTCCA TGGCAATGTT GAGACCTGTC	5160
TGACCACGGA GTGTTGGTAG CAAGGCATCT GGACCTTCCT TACGAAGAAT ACGTGCACA	5220
AATCAAGTG TAATCGGTTT AATGTAAACC TTGTACGCAA TTTCTTGTC CGTCATGATG	5280
GTGTGAGGAT TTGAGTTAAC CAAACAACC TCATAACCTT CCTCTTTCAA CGACAAGCAA	5340
GCTTAGTCC CAGCGTAGTC AAATCTAGCA GCTGACCAA TAATAATCGG ACCGAACCA	5400
ATCACCATAA TTTTGTAAAT ATCAGTACGT TTAGGCATAT ATAAGATATT AAGGGTGTCA	5460
AGCGGACAAA GCTAAATAG GAGTTATGAC GAAGAAGTGT CAGTTCTAGG AATAACTATC	5520
TTTTTAGCAC CGTCCGTAGC CGTATTCAAG TTCAGCAAA ACGGAGCACC CTCTCTCTTT	5580
CTATTCTGCT CCTCTCAGGG GCACATTAAA TAAGATACAA AGGACGAATA GAAAGCGATT	5640

GAATTTTAGG AATCAAGGA AGGATTGACA ATCCAAAGTTG GTTCTCTAC ATTCTGAGCT	5700
TTCCGTCCGT GTTCAGTTAC ATAAATCTC CGACGAGCTT TTACTCCTC TTAGTTTGAT	5760
TGTTTAAAAA CTTCCATCAT CTCGATAAAC TCGTCAATA GGTAGCTAGC GTCGTGTGGC	5820
CCAGGAGCTG CATCTGGGTG GTATTGAACA GAGAAAGCAG GTTGTATCT GTGGCCGACA	5880
CCTTCCACTG ACTTGTCATT GATTTCTTCG TGGGTAAATA TCAAGTGCTC TGGCAATACC	5940
TGCGGGCTGA CTGCATAACC ATGGTCTGG CTGGTGAAGT CTACTCGTCC TGTGCGATT	6000
TCACGTACCG CATGGTTGAA TCCACGGTGG CCAAACTTCA TCTTATAGGT CTTAGCCCCG	6060
TTTGCCATTG CAAAGAGTTG GTGTCCATA CAAATACCA AGATTGGAT TTTTCCITTG	6120
ACACCCGAA TCATGTGAG TGCTTGGA ACGTCTCTG GGTACCTGG ACCATTGAC	6180
AACATACTC CGTCAGGATT GAGATGGAGA ATTTCTCAG CGTTGTGCA ATAAGGAACA	6240
ACTGTACGT TACAGTTGG TTTAGAAAGT TCACGTAGGA TTGAGTCTT GAGACCAAG	6300
TCCACTAGCA CCACGCTCAA ACCAACTCCT GGAGCTGGT AAGAGCTTT AGTAGAAACC	6360
TGTTTGATAT TGTCTGTGG TAAAACTGTT GCTTGGAGCT GGTCCGTCAC ATGTCCATA	6420
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AGAGCACGGT TATCAATTCC TGAATCCCT GGAATTTCT TGGCTTTCAA AATTCATCC	6540
AAGTCTATT GGTGCGCCA GTTGCTAGCT CTACGCGCTT CTTCAAAAC AACGACTCCC	6600
TTACAAGTG GAATAATGGA TTCATAATCA TCACGATTAA TACCATAATT TCCTACCAA	6660
GGATAAGTAA AGTCAAGAT TTGTCCATTA TAAGACTGGT CTGTAAATGA TTCTGGTAG	6720
CCGTCATCC CTGTATTAAA GACGATTTCC CTTGTACAT CAATATCTGC TCCGAAGGCC	6780
TTGCTTCAA AAACCTGACC ATCTTCTAAT ACTGAATTC TTTTGTGAT ATTTTCACT	6840
CTCGTGACG CTCACGTGCG TCTTTTAAAC TCTTGTGTT TAGTTGGCGT TTCTACTCGC	6900
TAGTACGGAT TCTAAGATG CCATTGGAAC AAAGACACCA TTGGTCAATT GTTGACAAAT	6960
CGTGATTTT GGTGCTTCAA CCAAGTGGTC TGCTATTCT ACATCAGAT TGATTGGAGC	7020
TGGGTGATG AGGATTGCTG TTTCTTTCAA ACGATCGTAA CGTTCTTGAG TCAAGCCATG	7080
TTGGGATGG TAGTCTCTT TTGAAATAC AGCTCCACTA TCATGCGCTT CGTGTGCAC	7140
ACGGAGAAAC ATCATGACAT CAACCTGATC AATGATTTCA TCAATGGTAA CAACTGTCC	7200
ATAGTCTGCA AACTCTTGC TTCTCCATTC CTCAGTGCCA GCGAAAAGA GTTCAGCTCC	7260
CAAGCGTTTC AAATCTGCA TATTGGATT GGCACCGGT GAGTGGTCCA AGTCACCTGC	7320
AATAGCAACT TTAAGACCT CAAAGTGCC AAATCTCTCA TAAATGGTCA TCAATCAAG	7380

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CAAGCTCTGG CTAGGGTGT	GGCCGAACC ATCTCCACCA	TTGATGATGG AAGTCGFAAT	7440
CGTTGGACTA GCAATCAAT	CTCTATAGTA GTCGACTCT	GGATGGCGAA TCACACAGAC	7500
ATCCAATCCT AAAGCAGACA	GAGTCAAAAT GGTGTCTATA	AGTGTCTCAC CCTTATTAAC	7560
CGAGCTAGTC TTCACATCAA	AGTCAAGTCG TTCCAATCCA	AGTTTAAATCT CTGCGACTTC	7620
AAAGGACTTA TGTGTCCGTG	TAGAATCCTC AAAGAAGAGA	TTGGAAACAA TCGGATGGTC	7680
TTCATAGGGA AGCTGGGCTC	CATTTTAAAT CTCAAATCCT	CGCTTGATCA ATTTCAATTAC	7740
TTGATCGACA GTGAGGTCTT	CCATGGACAC CACATGGTTC	AATGCTTGTG GATTTCTGTA	7800
CATGGCTACT CCTTAACTT	TCTAAGCTTC TTCAGTAATC	AGAACTCTGT CTTGGTCATC	7860
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GTAAATCTGA CGGATTGGCA	ATTCTCTATG TCCACGATCG	ATAGAACTGC CTAAACTCAC	7980
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GCCTCAGGG ACAGGTTTAA	AGGAATATTT AGTTATCATT	TACTATAGCA CAAAGCATGC	8520
TTAAAAACAA GCAAAAAGTT	TCAATGTAGC ATCTTACAAA	TTGTAAAAAT CATATAATTG	8580
TGGGTACTGG TCACACTCTG	GATTTTTTGG ATGGCAATG	GCTCTTCCAA AATAAATCAT	8640
GGCCTGATGG GCAGCTAACC	ACTGCTCAGG CGGCAAGATA	TCCATGACCC GCTTTCCAC	8700
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AGTATCCACT GCAAAGGCTG	GAATCCAAA TCCTACACTC	ATGACAACAT TGGCTGTCTT	8820
CGCAACACA CCTGCCAAAC	TCTCCAATTC TTCACGTGTC	TGAGGGACTT GACCATCAA	8880
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CAAGCGAGAA ATATGTGAAG	CAATCTCACT CTCTGTGCGT	ACAGACATAG CTTGGGGTGT	9000
TGGAAGGACA ACAAGAGAC	CTGGTGTGGC CTTATTTACC	GCTGCACTGT TCGTCTGGGC	9060
TGATAACATG ACGCAACCA	GGAGTTCAAA ATGATTGGTA	AAATCAAGAC TAGGCTTGGC	9120
ATCTGGGAAG AGGCAATGA	TTTCTCTTAG CACCTTTCGT	GCTCTTTTTT TTGACAAGAC	9180

CATTATTCAT	CTCCGTCAAA	TAGTCCTGT	AAGCAGCAA	AAGGACTGTT	TTCTCTTTTC	9240
TITACTGCTT	TTTGAGCTTG	GTATTCCTCC	TCTGTCAAGA	TTTGGCAGTC	ATTTCCCTGAG	9300
ATAAATCCTT	GACCAGCTTC	TTCTTCAGCC	GTCAAGACCT	TGATAGGAAT	GTTTAGCAGG	9360
ATATTGTCTG	ATACACTCTC	AGCAAGGTCA	AGCTCCCAT	TTTTCGATGG	CAAGACCAAG	9420
TCATCATCTA	AAACTTCTTG	ATCTAGCTGG	TTAGTTGGCG	CTTCCATGAA	AACTTCGGTG	9480
ACTGGATAAG	ATTCAACTAA	CTCAACTGGC	TCCATCTGCG	GACTCGACGC	AAGAACAATG	9540
GTATAAGATA	GTTCATAATC	TAAGAAATAC	ATACGGTCTT	CATATTGTAC	TTTCCCAACT	9600
GCAAGGATAT	CTTTTACATC	TAAATTTTCT	TGATTACGTG	CACGCAAGTC	ATCAACTAAA	9660
TCTAACGTTT	GTTCAAAGTT	CAAACTTCA	GACTGCTTAC	GAATTTCTTG	AATATTTAAT	9720
TTCATACTTC	CTCCATAAAG	ATTTACTCTC	TTGATTATAC	CATGAAAAGG	CTACAAATCA	9780
GCACACCAA	CTTTGTAATT	AAAATTCAAA	ATTTTAACAT	ATTTTACTATG	ATAGTTTAT	9840
TTTTTACTGC	TATACTATAG	GGAAAGAGTA	CATCAGATCA	AGGAGGATGC	TCACATGGAA	9900
GACAAGAAAC	TCATTTCACT	CCTATCCAAG	TAAATAAATA	GCTACCAAAA	CTGTAAACAG	9960
GGTACGGCAG	ATGATATTCG	ACTACAAGAG	CTGCTAAACA	CTACTATGCA	AGAGCTCAAA	10020
AAAACGGAAC	AGTTGAACAA	CAGTATCTTA	ATTGATCTTG	AGAAATTTTA	CCAACCTACC	10080
AGTCTCTCTA	TTGGACTGGG	TAGCCTAAAA	CTAAACGATC	AAGCAGGCAC	TGCTTGGCGA	10140
AACATGATTA	AATTCCATTA	CGATCATGTC	AAACACGTAC	TAAGTCTCTA	TGGACCTGTT	10200
TTTGAATTTT	AGAGCATAGA	ATTTCCAGTT	TTCTGTGAC	AAAATTTCTT	TAAAGGTATA	10260
ATATAAAGAT	ACTAATACTC	GGAGGTAAAG	GAGACATGAA	CAACTAAGTC	TATCAAAATA	10320
AGAACCTTTA	TTTAGTAGAT	CTGTTTTTTG	TCTCTTTTTC	TGTCCTCTTT	TATGCTCTTT	10380
TTCTGGCATG	TTAATAGAGT	TTTTTTTGACA	TAGACTTTTG	GCTCTACTAG	GTAAAGTAGA	10440
GCITTTTGT	ATGCACTATG	AACATTCTAG	AAAGGGAAAT	CATATGATAA	AAATCAATCA	10500
TCTAACCATC	ACACAAAACA	AAGATTACG	AGATCTCTGA	TCTGACCTAA	CCATGACCAT	10560
CCAAGACGGG	GAAAAGGTGT	CTATTATTGG	TGAAGAAGGA	AATGGCAAAAT	CAACCTTACT	10620
TAAATTTTTA	ATGGGGGAAG	CTTTGTCTGA	TTTCACTATC	AAGGGAAACA	TCCAATCTGA	10680
CTATCAGTCA	CTGGCCTACA	TTCTCTAAAA	AGTCCCTGAG	GACCTAAAAA	AGAAAACTTT	10740
ACACCACTAC	TTCTTTTTAG	ATTCATTATG	TTTAGACTAC	AGTATCTCTT	ATCGTTTGGC	10800
GGAGGAATTG	CATTTTGTGA	GCAATCGTTT	CGCAAGTGAC	CAAGAGATTG	GCAATCTATC	10860
AGGGGGCGAA	GCTTTGAAAA	TTCACTTAT	CCATGAGTTA	GCCAAACCTT	TTGAGATTCT	10920

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ATTTTGTAGT	GAACCTTCAA	ATGACCTAGA	CCTTGAGACA	GTTGATPGGC	TAAAGGCCA	10980
GATTCAAAG	ACCAAGGCAA	CCGTATTATT	CATTGCCAT	GATGAAGACT	TTCTTCTGA	11040
AACGGCAGAC	ACTATTGTTC	ACTTGCGACT	GGTCAACAC	CCTAAGAAG	CGGAACGCT	11100
AGTAGAGCAT	TTAGACTATG	ATAGCTATAG	TGAGCAGAGA	AAGGCTAAAT	TTGCCAAACA	11160
AAGTCAGCAA	GCTGCTAACA	ACCAAGAGAC	CTACGATAAA	ACCATGGAAA	AACATCGGAG	11220
AGTTAAGCAA	AATGTAGAAA	CTGCGCTTCG	AGCTACCAAA	GATAGTACTG	CGGTCGCGCT	11280
ATTGGCTAAA	AAGATGAAA	CTGTCTCTCT	ACAAAGAAAA	CGCTACGAAA	AGGCAGCTCA	11340
GTCCATGACT	CAAAAGCCAC	TTGAAGAGGA	ACAAATCCAA	CTTTCTTTTT	CAGACATCCA	11400
ACCATTTACCA	GCTTCTAAAG	TCTTAGTCCA	ACTGGAAAAA	GAAAAATTTGT	CCATTGACGA	11460
CGAGTTTGT	GTTCAAAAAC	TACAACCTAAC	TGTCCGTGGC	CAAGAAAAAA	TCGGTATTAT	11520
CGGGCCAAAT	GGTGTGGGA	AATCAACTCT	GTTAGCCAAG	TTACGAGAGC	TTCTGAATGA	11580
TAAAGAGAG	ATTCTACTTG	GTTTTATGCC	ACAAGATTAC	CACAAAAAAC	TGCAATTGGA	11640
TTTATCCCCA	ATAGCCTATC	TCAGTAAAAC	TGGGGAAAAA	GAGGAACCTAC	AGAAAAATCCA	11700
ATCTCACCTA	GCTAGTCTCA	ATTTCAGTTA	TCCAGAAATG	CAGCATCAAA	TTGCTCTCTT	11760
ATCTGGCGGA	CAACAGGGAA	AACTCTGTCT	TTTGGATTTA	GTCTGGGSCA	AACCAAACTT	11820
TCCTCTGCTG	GATGAACCCA	CACGAJAATT	TTCTCCCACT	TCTCAACCCC	AAATCAGAAA	11880
ACTCTTTGCT	ACCTATCCAG	GGGGTCTCAT	CACTGTTTCG	CATGACCGTC	GTTCCTFAAA	11940
AGAAGTCTGC	TCGATCATCT	ATCGCATGAC	AGAACACGGT	TTGAAGCTAG	TTAATTTAGA	12000
AGATTTATATA	ATTTGCAACA	TAGCAAAAAT	CCAGAGACGA	CCTCTGGATT	CITTTACATC	12060
TGTTTAAAC	GTTCATTCOG	TTCTGAGATA	GGTGGGTGGG	TATAAAGAG	TTTTTGGAAAC	12120
CCCCACCTT	TCTTAGGATC	ATTGATATAA	AGGGCACTGC	TAGCATCATC	GACGTGGCGA	12180
CTCATAGGTT	TGCTATTGTC	CAACTTATCT	AGGGCATTA	TCATTCCCTG	GGGATTCGGA	12240
GTACAGCTGA	CACATAGATC	ATCTGCCAGA	AATTCCCTCT	GACGAGAAAT	AGCGAGCTGA	12300
ACCAAGGTTG	CAGCGAGAGG	TGCCAGTACA	ATAGCTAGTA	GGGAJAACC	TAGCATATATG	12360
ATTTCAAGAC	CATTTCCATC	TCGGTCATCA	TCATCTTCCTC	TGCGACCTCTG	TCCACCCACC	12420
CACATCATAC	GACCTGCCAT	ACTGAAAGC	ATGGTGATAG	CATCTGCAAG	GGCAACTGCA	12480
ATAGTCGAAA	TACGGATATC	ATAATTACGA	ATATGACTGA	CTTCAATGTC	CATAACAGCT	12540
TCTAGTTCTT	CACGATTCAT	GATAGCTAGT	AGACCTGAAG	TGCGACGAAC	AGCGCATATT	12600
TGAGGATTAG	AACTCTGCGC	AAAGGCATTT	AAGGCTGGAT	CATCAATGAT	GAJAJAACGG	12660
GGCATAGGAA	TCTGAGCCAC	CAGAGCCATA	TCTTCCACTA	CATGGTAGAG	GTCTGGTGGC	12720

GTTTGTCAT	CCACCTCAG	CGCTCCATTC	ATGGACATGA	CAATCTCTGT	CGATGGAAAA	12780
ATCATAGACA	AAGCGTAGAT	AAAGCCGATA	ATCAGTGCAG	TAAACAAACC	ACCAAGTCCA	12840
GATCTTATAA	AGAGATAACC	AACCGCMTAA	CCAACAAGAG	CTAAGAGTAG	GAANAATACC	12900
AGCAACAAAA	TCCAGGTTTT	TCGTTTATTG	CTTGCAATTT	GATCAAAACA	CATCTTAGTC	12960
ACCTAAACCG	CTAAAATCAA	CTTTAGGAAC	CGACTTTTCC	TCTTCAGGTG	TTTGAAGGAA	13020
ATCTGCCGCT	TTAAATCCAA	ACATTCACAG	GATAATATTG	CTCCGGAAAG	TTTCTAATTT	13080
TACHTGTAG	TGCTGACAA	CACTGTTATA	GAGTTGACGA	GAGTAAGAAA	TTTTATTTTC	13140
TGTGTTTGTG	AACCTCTCTT	GCAATTTAAAC	AAAGTTAGCA	CTAGCTTTCA	AATCTGGATA	13200
GCTTTCTGCA	ACTGCAAAAA	TACCTGAAAC	CTGACGAGTG	AGGGCATCAC	TGGCTTTCAT	13260
AGCTTCTGCT	GGTGAAGTCG	CTGCCGCCAC	TTGTTACGT	AGTTCTGCCA	CCTTTTCAAG	13320
GGTAGAACCT	TCAATTTTGG	CATAACCTTT	TACAGTCTCA	ATCAAGTTTG	GCAAGAGGTC	13380
ATTGCGACGT	TCAACTGAA	CATCAATCTG	ACTCAAAGCC	TCCTTGGTTT	GCATACGATT	13440
TTTAACCAAA	CCGTTATAGC	TAACAATCAC	AAAATAACA	ATAAGAGCGA	TAACCTCAAG	13500
AATAATCCAA	GTCAATATAT	AAGTCTTTTC	TGCTTTTAGA	TTAGTACCAG	TATATCAAAAT	13560
TTTCTATGAT	TGTGGTAAAA	TAAGATGATA	CTAAGAAGG	AAATAACTAT	GAACCAAAA	13620
ACATTTTACA	ACTTGCTTGC	CGAGCAGAAT	CTTCCACTTT	CGGACCAACA	AAAAGAACAA	13680
TTTGAACGTT	ATTTTGAAGT	CTTGGTGGAG	TGGAATGAGA	AGATTAAATTT	GACGGCGATT	13740
ACGGACAAGG	AAGAAGTTTA	TCTCAAAACAT	TTTTACGATT	CGATTGCACC	CATTCTTCAA	13800
GGTTTGATTC	CCAATGAAAC	TATCAAACTT	CTTGATATCG	GGGCTGGGGC	AGGATTTCCT	13860
AGTCTACCAA	TGAAAATTTCT	CTATCCGGAG	TTAGATGTGA	CCATTATTGA	TCTACTCAAT	13920
AAGCGCATCA	ACTTCTTACA	ACTCTTGGCT	CAAGAACTGG	ATTTGAACGG	AGTTCTNTTTC	13980
TACCACGGAC	GTGCCGAAGA	TTTTGCCCAA	GACAGAAGCT	TCCGTGCTCA	ATATGATTTT	14040
GTAACAGCTC	GTGGGGTTGC	CCGTATGCAG	GTCTATCTG	AATTGACTAT	TCCTACCTT	14100
AAGGTTGGTG	GCAAACTATT	AGCACTCAAG	GCTAGCAATG	CGCCTGAGGA	ATTATTAGAA	14160
GCTAAGAAATG	CCCTCAATCT	CCTTTTTAGT	AAGGTGGAAG	ACAATCTCAG	TACGCCCTAC	14220
CGAATAGAGA	TCCGGCTTAT	ATCACAGTGG	TAGAAAAGAA	AAAAGAAACA	CCAAATAAAT	14280
ATCCAAGTAA	GGCTGGTATG	CCAAATAAAC	GCCCACTTTA	AATTTTATTAG	TAAACAAATG	14340
TTTACAAAAT	CAGCTCGCT	CTTTTATTTTC	TAGGCTCGGG	AAAAAATGAT	TTACAAAATC	14400
AGCCTCGCTC	TTTTATTCT	AGGCTCGGGA	AAAAATGATT	TACAAAATCA	TTTTTTTCTG	14460

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CTATACTATC CTAAGCAAAG GTTTTAAATG TCATCCCGTG AGGTGACGAA GACGAGAAA	14520
TACTTAAAACT TCTTTAAAT CTAATTTTA AGAAGTCCT ACTCTGAGGG CCTATTGCTG	14580
TAAATAATG GGCTCTTTT TGATGCCCAA AAGTGAGGT TATATGAAC AAGAATCAAC	14640
TGTTGATTGG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6405 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTACAGA AAATAAAAAA AATAGGAGAA AATCTATGTC AGATTTGAAA	60
AAATACGAAG GTGTCACTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCCT GGTTCATATC TTCAATGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCGTGGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGAAA CTTGCTCGCC ATGCTGAAAG CTTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATCTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCACCTCCA AACACAGACT ACGTGATTTA CAACATTCCT CAATTGGCAG	480
GGGTTCCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTTATCGGTG	540
TGAAGAATCT TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTACGCTT GTTGGAAGG	600
ACCATATCGT CTTTAATGGT CCGATGAGC AGTTCTAGG AGGACGCTC ATGGGGGCTA	660
GGGCTGGTAT CGGTGGTACT TATGTTGCTA TGCCAGAACT CTTCTTGAAA CTCATCAGT	720
TGATTGCGGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAATA TTACCGTGT CATCAAGAA GTCTTGAAA	840
TCAATGAAGG CTTGAATATT GGATCTGTTG GTTCACCATT GACACCAAGT ACTGAAGAAG	900
ATGTTCCAGT TGTAGAAGCG GCTGCTGCTT TGATTGTGA AACCAAGAG CGCTTCCTCT	960
AATCTAAJAG GAGGTATTTA TGACATATTA COTTGCAATT GATATCGGTG GAACCAACT	1020
CAAGTATGGT TTGGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACATG	1080
GGCGCATAGG GTGGGACCTC ATATCTTACA AAAGACCAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGCG CCAAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGTTGT ATCCGATATA	1200

GGGTGAGATT TCTATGCTG GGCCGCAAAAT CCCTAATCTAC GCAGGCACCC AGTTCAAAAA	1260
GGAAATCGAA GAAAGCTTTA CTATTCCTTG TGAGATTGAA AATGATGTCA ACTGTGCAAG	1320
TCTTGCTGAG GCAATATCTG GTTCAGGCAA GGGAGCAAGT GTGACACTTT GCTTGACCAT	1380
TGGAACCGGT ATCGGTGGTT GCTTGATTAT GGATAGGAA GTCTTCCATG GTTTTAGCAA	1440
TTACGCTCTG GAATCGGGT ATATGCATAT GCAGGATGGA GCTTTTCAAG ACTTGGCTTC	1500
TACAAACAGCT TTATGGAAT ATGTAGCTGA AGCCCATGGA GAAGATGTTG ATCAGTGGAA	1560
TGGCCGTAGA ATTTTCAAAG AAGCCACTGA AGGAAACAAA ATCTGCATGG AAGGATTGGA	1620
CCGTATCGTT GACTATCTAG GAAAAGGTCT GGCATAATTT TGCTACGTTG CCAATCCAGA	1680
AGTGGTTATT CTTGGTGGTG GTATCATGGG GCAAGAGGCT ATCCTCAAAC CTAAGATCCG	1740
TACAGCCTTG AAAGAGGCTT TGGTACCAAG TTTAGCAGAA AAAACACGAT TAGAATTTGC	1800
CCATCACCAA AATACAGCAG GGATGTTGGG TGCATATTAT CATTTTAAAG CAAACAATC	1860
CTAGTTTGGC TCAGCCAAAC TAGGATTTTC TTACACGTTT TTGTCTACGA TAGCCGTTGA	1920
GTTTTATTAT TTCCAGTAG CTATTAAAGA TTTTTCCTT GCTTTCGCGA TTGATTTCCA	1980
AAAAGTAGGC ATAAATCAAA TCGATAAAGA AGAGCATAGG AAGTTGAGCG GATATTGCTT	2040
GSATATAGGA GGGTTGGCTG TGGTGGCTA CAAGAACAGT CTCTGTATAG GTCTGGCTAT	2100
CTTTATGGG AACACTTGTA AAGAGTACAG TCTTTGCCCC CATCTCCTTA GCATCTAATA	2160
GACTATCTAA AATAGAAGGA GTTGAGCCTG AAAGTGAGAA GCCCAGTACT AGCAATTTT	2220
CATCCATGAT GCTGGTGTG CAGGCAAGC CGTCTTGGTC TGTCAAAGCT TCGCAGACCA	2280
CACCTAGTCG CATAAAAGT AATTTCATTT CACGGGCGAC GAGGCCAGAA CTCCCTGTTT	2340
CAAGAAGTA GATACGCTCA GCATCTCGA TTAGCTGGGC AATTGCTTCT AGTTGGATT	2400
CGTCATCAA GTCTGTGTT TGTTCCTCA TATTGCTATA ACTTCTGAGG ACTCGTTTGG	2460
TCAGTGGACT GTGCTGGAG ACTTGGTTGG CTGTATTTC TGCTGATGT TGGTATTGGA	2520
AAATAAATTC TCGTAGCCA GTAAAGCCAC ACTTTTATAG AAAGCGGTC AAAGCAGCTT	2580
GAGAAATAG TAATTTTGG GTGACTTGT GAGAAGATAA ATCATCTGTA ATCGTTTCAG	2640
CTTGCAAAA ATAGCAGCG ATTTCTTGT CTAGGTCGT CATTTCTTCA AATGTGAAT	2700
CAATGATAGT TGCGATATCT GGTTCGTCCA TAGGGAAGC TCCTTTACAT GAGTCATACT	2760
GGAGAGCTAG ATCAGAGAT AGTCACACT CATTAACA CAATAATATA GATAGATTA	2820
ATAAAACGC ATCTCTGTTT TAAAAAGAA AAAATCGAAA AAGCTTCTCT CTTTCCATA	2880
ATTTTCTACT CAAATTGTG TACAATTAG AGTAAGATT TAAGTTAGAA ATGAGACTGA	2940

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TTTGTATGAG AAAATTTAAC AGCCATTGCA TTCCGATTCTG GCTTAATTTA TTGTTTTCAA	3000
TCGTCAATTTC ACTCTTATATG ACCATTATATG GTCTTTTGTGT GTATATGCGAG GTTTTGAAACA	3060
AGGATTTTTA CGAAAAAAG CTAGCTTTGAG CTAGTCAGAC CAAGATTACA AGCAGTTGAG	3120
CCCTGGGGGA AATTTATGAT GCTAGTGGAA AACCTTTGAT AGAAAAATACG TTAAAGCAGG	3180
TTGTTTCCTT TACGCGTAGC AATAAAATGA CGGCTACAGA CTTAAAGAA ACAGCTAAAA	3240
AGTTACTGAC TTATGTGAGC ATCAGTTCTC CAAATTTGAC AGAACGCCAG CTGGCGGATTT	3300
ACTATTGGCG TGATCCTGAA ATCTATAAAA AANTAGTGA AGCTCTCCCA AGTGAGAAAC	3360
GCTTGGATTC AGATGGCAAT CGTCTATGCG AATCAGAACT GTATAACAAT GCGGTCGATA	3420
GTGTACAAAC GAGTCAACTA AACTATACAG AGGATGAAAA GAAAGAAATC TATCTTTTTA	3480
GTCAGTAAA TGCTGTTGGA AACTTTGGCA CAGGAACCAT TGCGACAGAT CCTCTAAATG	3540
ATTCTCAGGT GGCTGTTATTT GCCTCTATTT CAAAGGAGAT GCCTGGCATT AGTATTCTTA	3600
CTCTTTGGGA TAGAAAGGTT TTGGAACCTT CCCTTTCTTC TATAGTTGGG AGTGATCCA	3660
TTGAAAAAGC TGGTCTCCCA GCGGAAGGAG CAGAAGCCTA TCTTAAAAAA GGCTATTCTC	3720
TAAATGACCG TGTAGGAACC TCCTATTTGG AAAAGCAATA TGAAGAGACC TTACAAGGAA	3780
AACGCTCGGT AAAAGAAATC CATCTGATA AATATGGCAA TATGGAAAGC GTGGATCAAA	3840
TTGAGGAAGG TAGTAAGGGA AACAAATCA AACTGACCAT TGAATTGGCT TTCCAAGATA	3900
GCGTGGATGC TTTACTGAAA AGTTATTCCA ATTCTGAGCT AGAAAAATGT GGAGCCAAAT	3960
ATTCTGAAGG TGCTATGCA GTCCGCTTTA ACCCAAAAA AGGTGCGGTT TTGTCTATGT	4020
CAGGGATTAI ACATGACTTG AAAACGGGAG AGTTGACGCC TGATTTCTTG GGAACGGTAA	4080
CCATGTCTTT TGTTCAGGT TCGGTTGTCA AGGCGCGGAC CATCAGCTCA GGTGGGAAAA	4140
ATGAGTCTT GTACGAAAC CAGACCTTGA CAGACAGTC CATTGTCTTC CAAGGTTGAG	4200
CTCCCATCAA TTCTTGGTAT ACTCAGGCTT ACGGTTCAAT CCCTATCACA GCGGTCCAAG	4260
CTCTGGAGTA TTCAACAAAT ACCTATATGG TCCAAACAGC CTTAGGTCTT ATGGGGCAAA	4320
CCTATCAACC CAATATGTTT GTCGGCAGCA GCAATCTAGA GTCTGCTATG GAGAACTGAC	4380
GTTCACACTT TGGCGAATAT GGCTTGGGTA CTGCGACAGG AATTGACCTA CCAGATGAAT	4440
CTACTGGATT TGTTCCTCAA GAGTATAGCT TTGCTAATTA CATTACTAAT GCTTTTGGGC	4500
AGTTTGATAA CTATACGCC ATGCAGTGG CTCAATATGT AGCAACTATT GCAATAAATG	4560
GTGTCTGTGT GGCTCCTGAT ATTGTTGAAG GCATTATAGG TAATAATGAT AAGGAGGAC	4620
TGGGTGACTT GATTCAGCAA CTGCAACGGA CAGAGATGAA TAAGGTCAAT ATATCCGACT	4680
CCGATATGAG CATCTTGCAC CAAGGTTTTT ATCAGGTTGC CCATGGTACT AGTGGATTGA	4740

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CAACTGGACG	TGCCPTTTC	AATGTTGCCT	TGGTATCCAT	TAGCGGAAAA	ACAGGTACAG	4800
COGAAAGCTA	TGTGGCAGAT	GGTCAGCAAG	CAACCAATAC	CAATGCGGTG	GCCTATGCCC	4860
CATCTGATAA	TCCCCAAATC	GCTGTGCGAG	TGGTCTTTCC	TCATAATACC	AATCTAAGAA	4920
ATGTTGTAGG	ACCTTCCATT	GCGCGTGACA	TTATCAATCT	GTATCAAAA	TACCATCCAA	4980
TGAATTAGAA	AGGAAATTAT	GCTTTTATCCA	ACACCTATTG	CCAAGTTGAT	TGACAGTTAT	5040
TCTAAGTTAC	CAGGTATCGG	GATTAAGACG	GCTACGGCTC	TGGCCTTTTA	TACGATTGGG	5100
ATGTCCTGCT	ATGATGTCAA	TGAATTTGCA	AAAAATCTCC	TTTCTGCTAA	GAGAGAAATG	5160
ACATAATTGT	CTATTTGTGG	ACGTTTGACA	GACGACGATC	CTTGTCTTAT	CTGTACTGAT	5220
CGACTCGTG	ACCAGACAAC	AA'TTTTAGTT	CTTGAGGATA	GTAGAGATGT	GGCAGCCATG	5280
GAAATATCC	AGAATACCA	TGGACTCTAT	CATGTCCTTC	ATGGCCTCMT	TTCTCTATG	5340
AATGTTATCA	GTCCGGACGA	TATCAATCTC	AAGAGCCTTA	TGACTCGTCT	TATGGATAGT	5400
GAGGTTTCAG	AAGTGATTGT	GGCGACTAAT	GCTACAGCTG	ATGTTGAAGC	GACTTCCATG	5460
TATCTTTCAC	GTTTGTCTAA	GCCGGCTGGT	ATCAAGGTTA	CGGCTCTAGC	ACGAGGCTCT	5520
GCTGTGGGAG	CGACATTTGA	GTATGCGGAC	GAAGTGACAC	TCTTAACGAGC	CATTGAAAAAT	5580
CGACAGAGAT	TGTAAGCTTA	GCCAAATTTA	CGAACTCCAT	TCA'TTTATAA	AAATCAAG	5640
AGGCTGAAAA	TGTTCTCTAT	CGGCTCTTTT	TTGTATAGTG	TGATGAGTAG	GCTCAGGTTT	5700
AAGTTTAA	AAACCAAGCA	AATATGATAT	ACTAAGAGAC	GAGTATCTTA	GTAGAATTAG	5760
GACAAATAAT	ATGAAACAAA	CGATTATTCT	TTTATATGTT	GGACGGAGTG	CGAAGCGGA	5820
AGTCTCTGTC	CTTTCAGCTG	AGAGTGTCTAT	GCGTGCGGTC	GATTACGACC	GTTCACAGAT	5880
CAGACTTTTC	TTTATCAGTC	AGTCAGGTGA	CTTTATCAAA	ACACAGGAAT	TTAGTCAATG	5940
TCCGGGGCAA	GAAGACCGTC	TCATGACCAA	TGAAACCAT	GATTGGGATA	AGAAAGTTGC	6000
ACCAAGTGCT	ATCTACGAAG	AAGGTGCAGT	GGTCTTTCCA	GTCTTTCACG	GGCCAAATGG	6060
AGAAGATGCG	TCTGTTCAG	GATCTCTGGA	AGTTTGAAA	ATGCCTTAAG	TTGGTTGCAA	6120
CATTTTGTCA	TCAAGTCTTG	CCATGGGATA	AATCACGACT	AAGCGTGTTC	TGGAATCTGC	6180
TGGTATATGCC	CAAGTCTCTT	ATGTGGCTAT	CGTGTGAAGC	GATGATGTGA	CTGCTAAAAAT	6240
CGCTGAAGTG	GAAGAAAAAT	TGGCTTATCC	AGTCTCTACT	AAGCGGTCAA	ACATGGGGTC	6300
TAGTGTCTGGT	ATTTCTAAGT	CTGAAAACCA	AGAAGAACTC	CGTCAAGCTT	TAAACTTGC	6360
CTTCCGATAT	GACAGCCGTG	TCTTGGTTGA	GCAACGAGTG	AATGC		6405

(2) INFORMATION FOR SEQ ID NO: 108:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11309 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCCT	240
AGCATTCGAC GTATTATCAA GTAGATAAGA AATAAATGGG CAGGACTAGG TCTTTGCCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAATCTAG	360
AAGAAAAATA TGAAAGATAG AATAAAAAGA TATTTCACAG ACAAGGGGAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCGAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCCT TAATGGAAG AAGCAACCAA ATTCGTTTTG AAGAAGATGG TAGTCTGACA	540
TTAGAAAATTA AGAAAAAACA TGAGATTACC CTCGAAGGGA TTTTTCATGC CCATAAAAAT	600
GGCTTTGGCT TTGTTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCGC	720
AATAAGGGAA CAGCAGAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTGTGCGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTGCTTCA	840
AAAAATCAGA AAATCAGTCA ACCGATTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACGAAGTTC TCAAGTCTT TATCGATAAA TACCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTC TCGATGTAGT GGGACACTCA ACGGATGTGC GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGCACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCTGATG TCCGCTCTCA AAAGGATATG GAAGTCTGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TGCAGGTCG GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAJAAATG GCAATCTCGA GTTTGGGTTT CACATGCGAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGCTG CCCTTGACAA GGAAGCCCTT AACCOTGCGA CTCTGTGTTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAAGCACTA TCAAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACGCGC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGCTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAAT	1500

GATATCCTAG	CTGGCGATGA	AGAAAAGAGA	AAAGAAATATC	ATAAAATTGT	ATCAAGTATC	1560
GAACCTCATGG	CCAAGCTTCA	TGAAACTTTA	GAAGAACATGC	GTGTGAAACG	TGGACCTCTC	1620
AAATTTTGATA	CCAATGAAGC	GAAGATTTTA	GTGGATAAAC	AAGGTAAAGC	TGTTGATATC	1680
GTCTCTTCGCG	AGCGTGATAT	TGCCAGACGG	ATGATTTGAGT	CTTTTATGTT	GATGGCTAAAT	1740
GAACAGGTG	CCGAACATTT	CAGCAAGTTG	GATTTGCCCT	TTATCTATCG	AATTACAGAG	1800
GAGCCTAAGG	CTGAAAAGGT	TCAGAAAGTT	ATTGATTATG	CTTCGAGTTT	TGGCTTGCGC	1860
ATTTATCGAA	CTGCCAGTGA	GATTAGTCAG	GAGGCACCTC	AAGACATCAT	GCCTGCTGTT	1920
GAGGGAGAAC	CTTATGCAGA	TGTATTGTCC	ATGATGCTTC	TTCGCTCTAT	GCAGCAGGCT	1980
CGTATTTGCG	AGCACAAATCA	CGGCCACTAT	GGACTAGCTG	CTGACTATTA	TACTCACTTT	2040
ACCACTCCAA	TTCTGTGTTA	TCCAGACCTT	CTTGTTCAAC	GTATGATTCG	GGATTACGGC	2100
CGTTCTAAGG	AAATAGCAGA	GCATTTTGAA	CAAGTGATTC	CAGAGATTGC	GACCCAGTCT	2160
TCCAACCGTG	AACGTGTGTC	CATAGAAGCT	GAGCGTGAG	TGGAAGCCAT	GAAAAGGCT	2220
GAGTATATGG	AAGAATACGT	GGTGGAAGAG	TATGATGCAG	TTGTATCAAG	TATTGTCAAA	2280
TTCTGCTCTCT	TTGTGCAATT	GCCAAACACA	GTTGAAGGCT	TGATTCACAT	CACTAATCTG	2340
CCTGAATTTT	ATCATTTCAA	TGAGCGTGAT	TTGACTCTTC	GTGGAGAAAA	ATCAGGTATC	2400
ACTTTCOGAG	TGGGTACAGA	GATCCGTATC	CGTGTGAAA	GAGCGGATAA	AATGACTGGA	2460
GAGATTGATT	TTTCATTGTT	ACCTAGTGAG	TTTGATGTGA	TTGAAAAAAG	CTTGAAACAG	2520
TCTAGTCGTA	GTGCCAGAGG	GCGTGATTCA	AATGTCGCTT	CGGATAAGAA	GGAAGACAAG	2580
AGAAAAATCAG	GACGCTCAAA	TGATAAGCGT	AAGCATTCAC	AAAAAGACAA	GAAGAAAAAA	2640
GGAAAGAAAC	CTTTTTACAA	GGAAAGTAGT	AAGAAAGGAG	CCAAGCATGG	CAAGGGCGCA	2700
GGGAAAGGTC	GTCCACACAA	ATAAAAAAGC	ACGCCACGAC	TATCAATTCG	TAGATACGCT	2760
AGAGGCAGGG	ATGGTCTCTGA	CTGGAACTGA	AATCAAGAGT	GTACGAGCTG	CTCGAATTAA	2820
TCTCAAGGAT	GGCTTTGCTC	AAGTGAAAAA	TGGAGAAGTT	TGGCTGAGCA	ATGTTCAATAT	2880
CGCGCTTAC	GAAGAGGGCA	ATATCTGGAA	CCAGGAACCA	GACGCTCGTC	GTAACCTCCT	2940
GCTCCATAAA	AAGCAAAATC	AAAAATTGGA	ACAGAGATC	AAAGGGACAG	GAATGACCCT	3000
AGTCTCCCTT	AAGGTCTATA	TAAAGATGCG	CTACGCTAAG	CTTCTTTTAT	GACTTGCCAA	3060
AGGGAAGCAT	GACTATGACA	AACGGGAGTC	TATCAAAAGT	CGTGAGCAAA	ATCGAGATAT	3120
CGCGCTGTG	ATGAAAGCTG	TTAATCAGCG	ATAAAAAAGG	GAATTGAAAA	TGGAAAAAAT	3180
AGTTGCCTAT	AAACGCATGC	CTTTGTGGAA	TAAACAAACA	ATGCCTGAAG	CTGTTACAGCA	3240

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AGACAAATCCA	ATGGCCCAAC	CTCAAGCGCT	GCACCGAGTG	GAAGCTGCCA	CAGATGATGT	3420
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CAATCCTGT	CATTCAAGAG	TCTTAGAGGC	CATGCAGACA	GTGAACAAG	GGAAAGCTTT	3540
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GACGGCTGTA	GATCAAAATG	GAATAGCTCT	TGAAATCTTG	CAAAGCATTG	TGGAGCAGGA	3660
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TGATTTTATC	GTTTCAACAG	TGTTCCTCAT	GTTCCTACAA	GCGGACCGCA	TTCCAGCTAT	3780
TATTCAAAAT	ATGCAGGAGA	AAACCAAGT	TGGTGGTTAC	AACCTTATCG	TTTGTGCCAT	3840
GGACACGGAG	GATTATCCTT	GCTCGGTTAA	CTTCCCATTG	ACCTTTAAAG	AAGGAGAACT	3900
GGCAGACTAT	TACAAGGATT	GGGAATTGGT	TAAGTACAAT	GAATAATCAG	GCCATTTGCA	3960
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CCAGATTGAA	CAAGACTTGA	CTAGCTATTA	TCAGCACTTT	TATACCTATT	ACCAAAAAAA	4980
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 TGA AAAAGAT ACATGGGATC TATCAACGAT CTACCCAACT GACCAGGCTT GGAAGAAGC 5160
 CTTAAAGAT TTAACAGAAC AATTGGAGAC AGTAGCCGAG TATGAAGGCC ATCTCTTGA 5220
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CTGAATTGAC AGATGAAGCC TATAAGAAAG CCTTTGATGA GTACACTCCA GATGTAACGG	8100
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AACGATCAAT	CAATTTAATC	ATGTACCTAA	GAATTAGAAT	GTTTATCCCA	AATTTAATTG	9120
AAAGCTTCTC	TAAGCTATAT	CCTTGTTTTT	TAAATTCATA	GATCTGAAC	TTATCATCAT	9180
AAGTTAATTT	CATAATAAAA	ACACCCCAAA	AGTTAGATTT	TTTCTGCTA	ACTTTTGGGG	9240
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AGGAACGAT	TCTAAGAAC	AGGGGTATA	GAGTTGACTT	TGGATAATCT	CAGCAGATTT	10260
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ACCAAGTCGT TTTAGGTTT CAATGGATTC AGGAAGAAGA GGAGAATCAC CACTAGCACC	10380
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CATGACTGCT CTCGACTAGC GGACGCATGT AACGGTAGAA AATGTCAAG AGCAAGGTCT	11280
GGATATGGGC ACCGTGGTA TCCGCATCG	11309

(2) INFORMATION FOR SEQ ID NO: 109:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 5548 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

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GTCCGTGGCG AAAGATTGTT TAGGAAGAAA AATCGTGAAG CAAGTGCCTC TGCCAAGCTG	180
ACTGTCACC GTGACTTGGC CACCTAATAA TTGACTGAGT TCTTTGACAA TGGCAAGGCC	240
AAGACCAGTG CCACCAGTTT GTCTGCTTGG ACCTTTATTA ACTCGGTAAA AACGTTCAAA	300
AATACGATCC TGCTCTAATT GACTAATACC AATCCCTGTA TCTGATACAG AAATCTTAAT	360
GCCTGTGTC ACCTTTTGGG TCTTGACCTC AATTTTTCCT CTTGTTTCAG TGTAAACGAT	420

801

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 TTGTTGAGCC TTAGATAAGG TAAGAAGATG CTCACAATA TGCTCAAGAC GCAAACTTTC 660
 TTTGTAAATA ATGCTAGAA AGTCATCCTT GAGCGCTTCT TCCTTCAGCTG ACATCCCTTT 720
 AATGGTTTCA GCAAAAGCCCT TAATCGAAGT AACTGGTGTC CTCAAATTCAT GGGAGGCATT 780
 TGAAGACAAAG GCTAAATTTA ACTTTTCATA AGTCTAATC GTTGTTTAAAT CATATAGCAA 840
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802

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GAGTAATGTC	GTCACTCCAG	TCGTAGCCCA	TCTCTTGCAA	GACAGCTTTG	AGCTGTTTAA	4260
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TACGGTAGAG	GGCTCAGCC	AACTCACGTG	TGATATAGAG	AGTTGCACCA	TCAGACTTCT	4380
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CTCCGATAAC	AGTTGAACGC	AGGTGGCCAA	TAGAAATGG	TTTAGCGATA	TTCCGACTAG	4920
ACATGTGCGAT	AACAACATTT	TCTTGTTTAC	CAATATTTTG	GTCAGCATAG	TGTTCTTTTT	4980
CAGTGTGTAAC	AGCTTGCAAT	ACTTGAGCAG	AAATGGCAGA	TTTATCAAGG	AAAAAGTTAA	5040
CGTAAGGTCC	TGTTGGGACA	ACTTTTTCAA	AGGCTTGGCT	GTTCATTTTT	TCAGCCAGTT	5100
CAGCCGCAAT	CATTTGTGGT	GCTTTACGTT	CGACTTTTGC	AAGAGAAAAA	GCAGGGAAG	5160
CAATGTCTCC	CATTTCTGAG	TTTTTAAOGG	TTTCCAGTAA	CTTTAAAAAT	GGCTCTTGGT	5220
CCAGGCTATC	AATGATGCTA	GATAATTGCG	TAGCAATCAA	TTCTTTTGTA	TTCAATTAGA	5280
GCTCCTTTTT	GGACTTTTCT	ACTATTTTAT	CACAATTTTA	AAGAAGAAG	AAAAAATTTT	5340
TGAAATCTCC	TGTTTTTTTG	GTATAATATG	GTATAAATA	TAGTTATAAA	TATGCACGCA	5400
AGAGGATTTT	ATGAGAAAA	GAGATCOTCA	TCAGTTAATA	AAAAAATGA	TTACTGAGGA	5460
GAAATTAAGT	ACACAAAAAG	AAATTCAAGA	TCGGTTGGAG	GCGCACAATG	TTTGTGTGAC	5520
GCAGACAACC	TTGTCTCTGT	ATTTCGCG				5548

(2) INFORMATION FOR SEQ ID NO: 110:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3132 base pairs

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(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TACCCGGTAG	TCTTAGCAGA	CACATCTAGC	TCTGAAGATG	CTTTAAACAT	CTCTGATAAA	60
GAJAAAGTAG	CAGAAAATAA	AGAGAAACAT	GAAAATATCC	ATAGTGCTAT	GGAACTTTCA	120
CAGGATTTTA	AAGAGAAGAA	AACAGCAGTC	ATTAAGGAAA	AAGAAGTTGT	TAGTAAJAAAT	180
CCTGTGATAG	ACAATAACAC	TAGCAATGAA	GAGCAJAAAA	TCAAAGAAGA	AAATTCCAAT	240
AAATCCCAAG	GAGATTATAC	GGACTCATTT	GTGAATAAAA	ACACAGAAAA	TCCCAJAAAA	300
GAAGATAAAG	TGTCTATAT	TGCTGAATTT	AAAGATAAAG	AACTCTGAGA	AAAGCAATC	360
AAGGAACTAT	CCAATCTTAA	GAATACAAAA	GTTTTATATA	CTTATGATAG	AAATTTTAAAC	420
GTAGTGCCCA	TAGAAACAAC	TCCAGATAAC	TTGGACAAAA	TTAAACAAAT	AGAAGOTATT	480
TCTATCGGTTG	AAAGGGCACA	AAAGGTCCAA	CCCATGATGA	ATCATGCCAG	AAAGGAJAAAT	540
GGAGTTGAGG	AAGCTATTGA	TFACCTAAAG	TCTATCAATG	CTCCGTTTGG	GAJAAATTTT	600
GATGGTAGAG	GTATGGTCAT	TTCAATATAC	GATACGGAA	CAGATTATAG	ACATAAGGCT	660
ATGAGAAATCG	ATGATGATGC	CAJAGCCTCA	ATGAGATTTA	AAJAGAAGA	CTTAAAGGGC	720
ACTGATAAAA	ATTATTCGTT	GAGTGATAAA	ATCCCTCATG	CGTTCAATTA	TTATAATGGT	780
GGCAAAATCA	CTGTAGAAAA	ATATGATGAT	GGAAGGGATT	ATTTTGACCC	ACATGGGATG	840
CATATTGCGAG	GGATTTTTCG	TGGAAATGAT	ACTGAACAAG	ACATCAJAAA	CTTTAACGGC	900
ATAGATGGAA	TTGCACCTAA	TGCACAJAAT	TTCTCTTACA	AAATGTATTC	TGACGCAGGA	960
TCTGGGTTTG	CGGOTGATGA	AAJCAATGTTT	CATGCTATTG	AAGATTCTAT	CAAJACACAAC	1020
GTGTAGTTGT	TTTCGGTATC	ATCTGGTTTT	ACAGGAACAG	GTCTTGTTAGG	TGAGAJAATAT	1080
TGGCAAGCTA	TTCCGGCATT	AAGAAAGCA	GGCATTTCAA	TGGTTGTTCG	TACGGGTAAAC	1140
TATGCGACTT	CTGCTTCAAG	TTTCTTCATGG	GATTTAGTAG	CAAJAATCA	TCTGAJAAATG	1200
ACCGACACTG	GAJATGTAAAC	ACGAATCTGA	GCACATGAAG	ATGCGATAGC	GGTCGCTTCT	1260
GCTAJAAAAATC	AAACAGTTGA	GTTTGATAAA	GTTAACATAG	GTGGAGAJAG	TTTTAAATAC	1320
AGAJAATATGAG	GGGCTTTTTT	CGATAGAGT	AAAJTACAJA	CAAJATGAAGA	TGGAACAJAJA	1380
GCTCTTAGTA	AAATAJAAAT	TGTATATATA	GGCAAGGGGC	AAGACCAAGA	TTTGATAGGT	1440
TTGATCTTTA	GGGCAAJAAT	TSCAGTATAG	GATAGAJATT	ATACAJAGGA	TTTAAAJAAT	1500
GCTTTTAAAA	AAGCTATGGA	TAAGGGTGCA	CGCGCATTA	TGGTTGTAAA	TACTGTAAAT	1560

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TACTACAATA GAGATAATTG GACAGAGCTT CCAGCTATGG GATATGAAGC GGATGAAGGT	1620
ACTTAAAGTC AAGTGTTC AATTTCCAGGA GATGATGGTG TAAAGCTATG GAACATGATT	1680
AATCCTGATA AAAAAGCTGA AGTCAAAAGA AATAATAAAG AAGATTTTAA AGATAAATTG	1740
GAGCAATACT ATCCAATTGA TATGGAAAGT TTTAATTCCA ACAAAACCGAA TGTAGGTGAC	1800
GAAAAAGAGA TTGACTTTAA GTTTGCACCT GACACAGACA AAGAACTCTA TAAAGAAAGAT	1860
ATCATCGTTC CAGCAGGATC TACATCTTGG GGGCCAAGAA TAGATTTTACT TTTAAAACCC	1920
GAATGTTTCAG CACCTGGTAA AATATTTAAA TCCACGCTTA ATGTATTATA TGGCAATCA	1980
ACTTATGGCT ATATGTCAGG AACTAGTATG GCGACTCCAA TCGTGGCAGC TTCTACTGTT	2040
TTGATTAGAC CGAATTAAA GGAATGCTT GAAAGACCTG TATTGAAAAA TCCTAAGGGA	2100
GATGACAAAA TAGATCTTAC AAGTCTTACA AAAATTGCCC TACAAAATAC TGC CGACCT	2160
ATGATGGATG CAATCTCTG GAAAGAAAA AGTCAATACT TTGCATCACC TAGACAACAG	2220
GGAGCAGGCC TAATTAATGT GGCCAAATGCT TTGAGAAATG AAGTTGTAGC AACTTTCAAA	2280
AACACTGATT CTAAAGGTTT GGTAAACCTA TATGGTTCCA TTTCTCTTAA AGAAATAAAA	2340
GGTGATAAAA AATACTTTAC AATCAAGCTT CACAATACAT CAACAGACC TTTGACTTTT	2400
AAAGTTTCAG CATCAGCGAT AACTACAGAT TCTCTAAGCTG ACAGATTAAA ACTTGATGAA	2460
ACATATAAG ATGAAAAATC TCCAGATGGT AAGCAAAATG TTCCAGAAAT TCACCCAGAA	2520
AAAGTCAAG GAGCAATAT CACATTTGAG CATGATCTT TCACTATAGG CGCAATTTCT	2580
AGCTTTGATT TGAATGCGGT TATAAATGTT GGAGAGGCCA AAAACRAAAA TAAATTTGTA	2640
GAATCATTTA TTCAATTTGA GTCAGTGGAA GCGATGGAAG CTCTAAACTC CAGCGGGAAG	2700
AAAATAAACT TCCAACCTTC TTTGTGCGATG CCTCTAATGG GATTGTCTGG GAATTGGAAC	2760
CACGAACCAA TCCTTGATAA ATGGGCTTGG GAAGAAGGGT CAAGATCAAA AACACTGGGA	2820
GTTTATGATG ATGATGGTAA ACCGAAAAAT CCAGGAACCT TAAATAAGGG AATTGGTGGA	2880
GAACATGATA TAGATAAATT TAATCCAGCA GGAGTTATAC AAAATAGAAA AGATAAAAAAT	2940
ACAACATCCC TGGATCAAAA TCCAGAAATTA TTTGCTTTCA ATAACGAAGG GATCAACGCT	3000
CCATCATCAA GTGGTTCTAA GATTGCTAAC ATTTATCCTT TAGATTCAAA TGGAAATCCT	3060
CAAGATGCTC AACTTGAAG AGGATTAACA CCTTCTCCAC TTGATTAAG AAGTGCAGAA	3120
GAAGGATTGA TT	3132

(2) INFORMATION FOR SEQ ID NO: 111:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14672 base pairs

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(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID No: 111:

CGAGATTTCCT TTAATGAAC TACUTGAAAT CTACCATCA TCCAGATCTG GATATTCTCT	60
CCTATCTATA AGTAAAGTTT TAGGAGATT TAAATAAGT TCTCATGCTT TTAAGCTTC	120
GGTAAGAGAT TTAAGACCG TCAGTTCCC ACTCATTGC TTCTGGGAGA GTTCTCATT	180
TATTATTCTT GAAAAATTA GTAAAACAA GTTTTATATT TTAGATCCTG CAAAGGCAG	240
GCAGAGAATG TCAATAAGTG AATTGAAAG GCATTATTCA AATATCATT TAACATTAA	300
AAAGTTAGAT AGCTTTATGT CTCGTAAAG TAATAAGAAG TCGCTGTTT TAAAGTATT	360
TTTAAAGTAT AGGAATAAGC TAGGGATTTT ATTTTGTGA ACAGCATTAT TGTATGTAAT	420
ACAACTATTG GTACCTTAG CTAATAGATA CATAATTGAC ACGAATTCA AGGACGATTC	480
GTATTCOTCT AGAATGTTAT TTACTATATT AITTATATTT ACTGTTTCAT TCTCACTAAT	540
GTATTTATTA AGACAGATAT ATGTTGCATC CTTAAATAT ATAATGGATA AAGAGATTAG	600
CTATGATTTT ATGAACATT TGATATATTT ACCTTACAGT TTTTATGAAA AACGTACTTT	660
AGGGGATATA CTTTTAGAG CTAACCTCAT TGTTTATATA AGAGAAATAC TATCAAAATA	720
TTTTATAGCA GCTACTCTG ATTTGTTAAT GATTGTGTTT TATGCTGTGG TTTTATTAG	780
CTTTTCTAAG TACATGGTAA TCTTTTAAAT ATCACTAAGT CTAGCTCTAT CTATTGTAAT	840
GTATCCAATC ATAAAAATCT CAAAAAATTT AATTGATAAA AATATAAAG AAAAGGTTAA	900
TGTTCAAAAT ATTACTCCG AAGTAATTC TAAAAATAGT GATATTAAAC TAACTGGAGA	960
AGAGGAATTT TGGATTAAAC AATGGGATAA TTTTAATACA AAACAGCTCA TCATAGGTG	1020
AAAACCTGAT ATACATTTAT CAATTGTTAG TAGTATAACG AATGTTTAC AAATTATTCT	1080
CCCTGTTTTG ACCCTTATTG TAGGTGTAAA TATAAAAACA TTCGACAAT TGACGTTAAG	1140
ACAAATTTGA GCAATAAGTA CAGTCTCACC ATACTTTATT TCTCTATAAA TTTCITTAAG	1200
TGATTAATAT ATACAATTAA TGTATTATAA GGGATATTTT TTAAGATAG AGGATGTGTT	1260
TAATCTATAA TCCGAATTAA TTCCAGAAAG AGTCAGTCAA GATATAAAAT TTGATAAAAA	1320
AATAGAATTA AAGATATTT GGTATAAATA TGGATTATTT GATGATTATG TTTTGAAAG	1380
AATAAATGTT ACTATTAAAA AAGGAGAAAC TGTGTGCTAT GTTGAGAGAT CAGGTTACAG	1440
TAAGAGTACA TTAGCTAAAA TTTTATTAGG TTTATTAGAA CCTAATATTG GTTCAATAGA	1500
AGTTGATGGA GTAGAAAAAG AAGAAATGCG TCAAAACATTG TATAGAAAGA TTTTGGAGC	1560

AGTGTACAA AATTCAACCC TAAGTTATGG TACCTTAAGA GAGAAITTGA CATTGGACA 1620
 CTTTGTTCGA GATGAGAAT TAATGACAAA TCTMAATCCA ATTGGTCTTA GCAATGTAGT 1680
 TAAATCTTTA CCTCTGGAT TAGAGACAAT CATCGCTGAA GAAGGTAATA ACTTTCTGG 1740
 ACGCAGCAG CAAATGATAC TTTTAGCTCG TTGTCTTTTG TCGAAACCTT CGGTAGTTGT 1800
 TTTGGACGAA GCAACAGTA GTTTAGATAA TTTATCTCAA CAAATTACAA CTCTTACTT 1860
 AAGTGAAATC GGTACCACTA AGATTTTAAT TGCCCATCGA CTAGATACTA TCAAGTCTGC 1920
 AGATAAGATC TTAGTAATGC ATAAATGGTGA AATTGTAGAG ATTGGGACCC ATAGAGAACT 1980
 TCTTGAACTA GGAGGCATTT ATAAGCAATT GTATTCAAAT AATTAGTTTT TGATTAAAG 2040
 GGTAAATTTA TGAAGATTAT GAAAAAATAA TATTGGACTT TAGCGATATT ATCTTTTGT 2100
 TTGTTCAATA ATTCTGTTAC TGCTCAAGAA ATACCTAAAA ATCTTGATGG CAATATAACT 2160
 CACACTCAGA CTAGCGAAG TTTTCTGAA TCTGATGAAA AACAGGTTGA CTATCTAAT 2220
 AAAAATCAAG AAGAAGTAGA CCAAAATAAA TTTGATATTC AATCGATAA GACAGAATTA 2280
 TTTGTACAAA CAGATAAACA TTTAGAAAAA AACTGTTGTA AATTGGAAT TGAACACAA 2340
 ATAAATACG ATATTGTTAA CTCTGAAAGT AATAATTAC TAGGCGAAGA TAATTAGAT 2400
 AATAAAATTA AGGAAATGTT TTCTCATCTA GATAATAGAG GAGGAATAT AGAGCATGAC 2460
 AAGATAACT TAGAATCGTC GATTGTAAGA AAATATGAAT GGGATATAGA TAAAGTTACT 2520
 GGTGGAGGCG AAAGTTATAA ATTATATTCT AAAAGTAAIT CTAAAGTTTC AATTGCTATT 2580
 TTAGATTACG GAGTCGATTT ACAAAATACT GGAATTACTGA AAAATCTTTC AAATCACTCA 2640
 AAAAAATATG TCCCAATAA AGGATATTTA GGAAGAGAG AGGGAGAGGA AGGAATAATA 2700
 TCAGATATTC AAGATAGATT AGGTATGGT ACGGCTGTTG TAGCTCAAAAT TGTAGGGGAT 2760
 GACAAATATTA ATGGAGTAAA TCCTCACGTT AATATTAAAC TCTATAGAAIT ATTTGGTAAG 2820
 TCTGCAGTA GTCCAGATTG GATTGTAAAA GCAATTTTGT ATGCTGTAGA TGATGGCAAT 2880
 GATATTATCA ATCTTAGTAC TGGACAATAT TTAATGATTG ATGGAGAATA TGAGGACGGA 2940
 ACAATGATT TTGAACATT TTTGAAGTAT AAAAAGGCTA TTGATTACGC GAATCAAAA 3000
 GGAGTAATTA TAGTAGCTGC ATTAGGGAAT GACTCCCTAA ATGTATCAAA TCAATCAGAT 3060
 TTATTGAATC TATTATTAGT ACGCAAAAAA GTAGGAJAAC CAGGATTAGT AGTTGATGTT 3120
 CCAAGTTATT TCTCATCTAC AATTTOGGTC GGAGGCATAG ATCGCTTAGG TAATTATCA 3180
 GATTTTAGCA ATAAAGGGA TTCTGATGCA ATATATGCGC CTCGAGGCTC AACATTATCT 3240
 CTTTCAGAT TAGGACTTAA TAACTTTATT AATGCAGAAA AATATAAGA AGATTGGATT 3300

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TTTTCGGCAA CACTAGGAGG ATATACGTAT CTTTATGTGAA ACTCATTTGC TGCTCCATAAA	3360
GTTCCTGTGG CGATTGCAAT GATTATTGTAT AAATACAAAT TAAAAGATCA GCCCTATAAAT	3420
TATATGTTCG TAAAAAAATC CTGGAAGAAA CATTACCACT AAAAAATGGT ATAAAAAGTG	3480
TAAATATACC AAACGTATTC AGATATGTAT TGAATATGTT ACAATTAGAA TATAAAAATG	3540
AACAAAGTTG GGATAGTTTC ATAGATAATG TTAATTTAAT TGAGTTGGAA GAGAGAAATC	3600
AAACTACTAT TGGAAATAAA CAAATAAACA CACACAATAT TATTACTATT GCCCGAGAAAG	3660
GGTACTCTCA AAATTATTTA CCTAACACTT CAGAAAAATC ATATAATTCA TTACAAGTCA	3720
GTTTAGTTGG AGTATTACTA CTTTTTATAA GTATGGTAAA TATTTTATGG GCTAAAAAAA	3780
GTAAATGAAA ATAAAAATTG GAGCCCTCTG AAAAAATGAG TCCTACAGTT CAACTAAAAAT	3840
GAGTCAAAAG ATGAATCACC TTGATGTAGG GGAGTTTGTC TTATTGCTGC CTGAACACCT	3900
CCGTCAGAG GAAGAACATT ATAAATCTGT TTTTGAAGAC GACTTAACCA GTCCGATATC	3960
TAGTCAGAGT GAACGACAGC AATGACTGTC TAGGTAGGT TATTAGAAAT CAGGTCAGGA	4020
TCGTTTGTGT TATAATACGA CCCCTATTTC TTACCAGCAG TTTTGAAGAG ATCCAATCAT	4080
CATTGTATTA ACACCCCAAT CAACTGGTCC ACAGTCCATT TTGTTTGGGA TAGACCGAGT	4140
ACAGAACTAC GTTCTCTTTA ATCAATTGTC TGATGCCAG GAGCTTATCC AGAGACAAAG	4200
CATTGAAAAAT TGGGTCTCAG AAATGCAAAAC AGGTACCAC AACTACATCA CATTAATTGA	4260
TAATATCCAG AGGGAACGTT GGTAATGCT AGCAGGAGCT GTGCTGGGA TTGCAACTTC	4320
AATCTTGTG TTTAACACTA TGAATAGGCT CTACTTTGAA GAATTTAGAC GTGCCATTTT	4380
TATCAAAAGC ATTGCAGGTC TCAGGTTCTT AGAAATCCAT CGCACTTATC TCTTTGCTCA	4440
ACTGGGTGTG TTTTACTGCG GATTGTGTGC GAGTGTATTT CTTCAGGTAG AGATAGGAGT	4500
TGCTTTCTTA GTCTTGTTAC TCTTTACTGG TCTATCTCTT TTACAGTTAC ATGTCCAAAT	4560
GCAGAAAGAA AACAAATGT CCATGCTTGT TTTGAAGGGA GGTAAATATG ATGGAACCTA	4620
AACAGGTGAG TAAATCTTTT GGAGACGAG AGTTATTTTC GAATCTTTCA ATGACATTGG	4680
AGGCTGGAAA AGTCTATGCC TTAATTGGTT CAAGTGGTAG CGGAAAAACA ACCTTGATGA	4740
ACATGATTGG GAATTAGAAA CCTTATGATG GGACGATTTT TTACCAGGCT AAAGACTTGG	4800
CAATATATAA ATCAAGTATG TTTTCCGTTC ACGAATTGGG CTACTCTTTC CAGAACTTGG	4860
GCTTAATTGA AAACCAAAGT ATTGAAGAAA ACCTTAAGCT AGGTCTCATG GGTCAAAAGT	4920
TGAGTCGGTC GGAACAGCGG TTGAGGCAGA AGCAGGCTTT AGAACAGGTC GGCCTGGTTT	4980
ATCTTGACCT AGATAAGCGC ATCTTTGAGT TATCGGCGCG AGAATCGCMA CGGGTTGCCT	5040
TGGCAAAAAAT TATCTTAAAG AATCCACCCT TTATTCTGGC AGATGAGCCA ACAGCTTCAA	5100

TAGACCCAGC AACCTCTCAG TTGATTATGG AGATT'TTGGT ATCTCTTCGA GATGATAATA	5160
GGCTAATCAT TATCGCAACA CATAATCCGG CAATT'TGGGA GATGGCTGAT GAAGTGTTCA	5220
CGATGGATCA TCTGAAATAA AAATCCTTGT TTTTAATTGC ACGATGAGTT ACTGAAATAT	5280
TATCATGAAT CAAGAATTGG AGTTAATTTA GAA'TTGTAAT TAATTTAGAA TTGTACTTTA	5340
TTAATATTGA GGTAACTTTT TCTTGATAAA GGAAGAAATA ATGGAGAGGA AGTTAGAATG	5400
AAAAAATTCG ACAATTATAT TATTGAGAGG CCTTGCAGTT CTAATTTCAGA TAAACTGCRA	5460
AAATCTTAA TAATTGAAAG TTTGGTAGAT GATATTTTGC AATTTTCTCT CAGAATCAAT	5520
AATAGTGTAG GAGAGATTTT CCTCTACAA CCGTTTAAA AGAAAACTAT CTTAATTCRA	5580
TGTTA'TTTTG AGGAAGATAT TGTGAAAGTC AAAGATGATG ATAAAGTTGA GTGGAATTTG	5640
TTAGAATTC AAAAATTTAG AGCATTTTGT GCTTAGTAAT CTGTGTTGAA GGCTCAAAAC	5700
CTATGGTAAA AAGTAGCTT TGAAAACGTA TTGCCTCCAA AGATT'TAGTT AAATAATGAT	5760
TTAACACAAA AAGAAAT'TAT TGAAGTTCTG GAAAGATGTT GTTTCAGTAT TGAGAAAAGG	5820
TGGGAAAAAC TTGCAGATTT CACAGAGAAA GGAAGAAAAA GTATAGAAAT ATAGTCAATT	5880
GAAACAAAGA CAGGATAAAA GAACCTTTTG TGCCATATTT TTCTCCTTTC GCTTTACAAT	5940
TGGATTGAAC ACCTTTATTG TATCGCGTTT GGAGTTTTT TGGTATAACC TTCGACGCAC	6000
ACCCGCATAG CGGGTGTTTT TTTTGTCTCG CACCTAACGG AGCGAGACAA ACTAATAGTC	6060
ACTTAATCAA AAAACGCACC ATATCAAAAA CTAAGAAAGT TGATATCATG CGTCATGTCT	6120
TAAACTAATT GACTATACCT TCTATTCAA TGAGCTTTTA ACCAATTGAT TGAGCCAATC	6180
CACCTCTTAA ACCAAGAGC AATTTCTCGC TTAGCTGACT CTCTGAAATC TGAACCATGT	6240
ACAACATTTT GGATAATCTC ATTTTCTCCA GCAGCTTTTG CAAATCAAC TCGAATAGTG	6300
CCTGGTAAAG CTCTCTCTGG ACGAGTTGCA CCCATCATGG TCCGCCAAGT TTCGATTACT	6360
TTGGGACGAG AAATGACACC CACAAGAACT GGACCTGAAG TCATGAATTC ACGAATCGGT	6420
GGGTAAAAAC TCTGACCAAC CAAGTCTGTA TAGTGCTGGT CAATCAACTC TTCTGAAACC	6480
TGTGAACGAA ACTCCAATTT TTCGATTGTA AATCCACGTT GTTCGATGCG CTTTAACTACT	6540
TCACCCACTA GCCCTCTTTT TACACCATCT GGTTTGATGA TAAAGAATGT TTGTTCCATA	6600
CCGTCCTCTC TTGTGAGCTT CTTTCTTTTA TTTTACCACA TTTCGTGAGAA AATGGAGAA	6660
AGTTTTCAGA AGAGAGAATG AGAGAACCCCT CGGGTCTCTC CATTTCTCTCT TATTCTACTG	6720
TTCTCTCCAC AGTTTCAACG GCAATATCCA CAACTACTTC TGTTGTTTCT TCAATTTCTTT	6780
CTTCTCTTAC TGGAGGATTA AGGTATTCTT CTTCGTTGAC AGCATGTGTT TCAAGGTTAC	6840

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GGTAACGGGC	CATACCAGTA	CCAGCTGGGA	TGATCTTACC	GATGATAACA	TTTTCTTTAA	6900
GTCCAAAGGAG	ATGGTCTTTC	TTACCACGGA	TAGCTGCGTC	AGTAAGGACA	CGAGTGTGTT	6960
CCTGGAAJGA	AGCCGCTGAC	AAGAAACTGT	TTGTTTCAAG	TGAGGCTTTG	GTAATTCCCA	7020
TAAAGGACTGG	CGCACTGTCT	GCTGGAACTC	CACTTGCAT	AAGGACATCT	TTGTTGGCAT	7080
CTGTAAAGTC	ATTGATATCC	ATGAGGGTAC	CCATGAGAAG	ATCTGTATCA	CCTGGATCCA	7140
TGACACGAGC	TTTACGGATC	ATTTGACGAA	CCATTACCTC	GATGTGTITG	TCACCGATT	7200
CTACCCCTTG	GCTACGGTAA	ACTTTTTGTA	CTTCACCGAG	AAGGTACGTT	TCAACTGACA	7260
AGACATCAGC	AACTGCAAGG	AGACGTTTTG	GTTCGATAGA	ACCTTCTGTC	AGAGCAGCAC	7320
CACCGGCTAC	TTGGCCCCCA	ACTTCGACAC	GCATACGAGC	TGTAATGGA	ACGACATATT	7380
CACCTTCGCC	AGTTTCACCC	TTAAACAAAG	CTTCTTGCT	ACGAGTTGAT	GCATCTTCTT	7440
CGATAGCAGT	AACTTGTGCT	TTAACTCTCG	TAAATAACCG	TTCCCTTTTA	GGATTGCGGG	7500
TCTCAAGATT	TTCTTGACCA	CGAGGAAGAC	CCTGAGTGAT	ATCGGTATT	GAGGCAACCC	7560
CACCTGTGTG	GAAGGTACGC	ATTGTAAAGT	GTGTACCAAG	TTCCCGGATA	GATTGGGCAG	7620
CGATTGTACC	AACTGTCTCA	CCAACCTCAA	CCGCATCAC	AGTCGCCAAG	TTGATACCGT	7680
AACAGTGACG	CGACACACCG	TGACGAGTGT	TACNTGTAAA	TACAGAACGG	ATAGTCACTT	7740
CTTCAACACC	AGCATTGACA	ATTTCACGCG	CCTTGTCTTC	TGTAATCAAT	TCATTTGAGC	7800
CAATAATCAC	TGCACCAATT	TCTGGATGTT	TAACAGTTTT	CTTAGTGTA	CGACCGTTGA	7860
GACGCTCTTC	GAGAGACTCG	ATCATCTCTT	TTCTTCTGCG	GATAGAACGG	ATCAAGAGAC	7920
CACGGTCAGT	TCCACAGTCG	TCCTCACGGA	TGATAACGTC	TTGGGCAACG	TCGACCAAAAC	7980
GACGAGTCAA	GTAACCTGAG	TCGGCTGTCT	TAAAGGCGGT	ATCGGTGATA	CCTTTACGAG	8040
CACCGTGAGT	TGAGAAGAAC	ATTTCCAATA	CCGACAAACC	TTCCGCGAAG	TTTGAAGGA	8100
TTGGCAATTC	CATGATACGT	CCATTCCGAG	CAGCCATCAG	ACCACGCATA	CCGSCAAAGCT	8160
GTAGGAAGTT	TGAGATGTTA	CCACGGGCTC	CAGAGTCCAT	CATCATAACG	ATTGGGTCTCT	8220
TAGATCTCTG	GTTAGCAATC	AAGCGTTTCT	CAAGTTTTTC	ACGGGCAGCA	CCCATTCAG	8280
CTGTAAACAG	ATTGTAAAGC	TCGTCTGCTG	TGATCATACC	ACGACGGAAT	TGTTGGTGTA	8340
TTTGTTCGAC	ACGTTTGTGT	GATTCTTCAA	TGATTTGAGC	CTTGTCATCA	ACGACTGGGA	8400
TATCGGCAAT	ACCCACTGTC	AATCTGCAA	GAGTTGAGTG	GTGGTAACCG	AGGTTCTTCA	8460
TGCGGTCAAG	TAGGGCAGAA	GTTTCTGTCT	TACGGAAACG	TTTGAAGATT	TCAGCGATGA	8520
TATTTCCAGG	GTTTTTCTTC	TTGAAATGGAG	GGTTGAGCTC	AAGATTGCTG	ATAGCTTCTT	8580
TGATATCTCC	ACCAAGTGGC	AAGAAGTATT	TAGCTTGAAC	ACCTCTGCTC	AAGTTGGCAT	8640

TGTTTGGTTC	TTGCAAGTAT	GGTAGCCCTT	CTGGCATGAT	ATCGTGAAG	AGAAPTTAC	8700
CAACTGTGT	AAGCAAGACC	TTATGCTTTT	GCTCTCTGT	CCAAGGCTTG	TTGAGGCTGT	8760
CTGTTGCGAT	ACCAACACGT	GAGTGGAGGT	GAACATAACC	ATTGCGGTAA	GCCATAACCG	8820
CTTCGTACAG	GTCTTTGAAG	ACCATTCCTT	CACCTTCGGG	ACCAGCTTCT	TCCATGGTCA	8880
AGTAGTAGTT	ACCCAAAACC	ATGTCCCTGAG	ATGGAGTAAC	TACCGGTTTC	CCATCTTTGG	8940
GGTTCAAGAT	GTGCTCAGCA	GCTAGCATGA	GGATACGAGC	TTCTGCTTGT	GCTTCTCTTG	9000
AAAGTGGTAC	GTGGATGGCC	ATTTGGTCCC	CGTCAAAATC	AGCATTTAGT	GCTTCACAGA	9060
CAAGTGGGTG	CAAGCGAAGA	GCTTACCAT	CAATCAAGAC	TGGCTCGAAG	GCTTGGATAC	9120
CCAAACGGTG	AAGGGTCGGT	GCGCGGTTCA	AAAGCACTGG	GTGTTCTTTA	ATCACTTCTT	9180
CAAGGATATC	CCAGATACGC	TCATCTCCGC	GTTCACCAAA	CGGTTTAACT	GCTTTGACGT	9240
TTTGACGAT	ATCACGGGCA	ACGATTTTAC	GCATGACAAA	TGGTTTAAAG	AGTTCAATCG	9300
CCATTTTCAG	CGGCACACCA	CATTGGTACA	TCTTAAAGAT	TGGACCAACG	GCGATAACTG	9360
AACCTCCTGA	GAAGTCAACA	CGTTTACCGA	GCAAGTTTGT	ACCGAAGCGT	CCTTGTTTAC	9420
CTTTAAGCAT	GTGGCTCAAT	GAATTCAAAT	GACGGCTACC	TGCTCCCTGT	ATTGGACGAC	9480
CACGACGACC	ATTGTCAATC	AAAGCGTCAA	CTGCTTCTTG	AAGCATACGC	TTCTCATTTT	9540
GAACGATGAT	ACCTGTGTGA	TTTAACTCAA	GCAAGCGAGC	CAAACGGTTG	TTACGGTTGA	9600
TAACACGGCG	GTAAGGTCA	TTCAAGTCAG	ATGAGGCAAA	ACGGCCACCA	TCCAACGTCA	9660
ACATTCGACG	AAGATCTGGT	GGGATAACCG	GAAGGATGTT	AAGAATCATC	CATTCAGGTT	9720
TGTTTCCAGA	CTGTGTAAG	GCAATCCAAA	CATCCAAACG	ACGGATGGCT	TTGACACGCT	9780
TTTGTCAGT	AGCTGTTTTT	AATCTCTCTT	TGAGTTCAGC	AATTTCTTTT	TCAAGATCTA	9840
CTTGCTTCAA	AAGGCTCTGG	ATGGCTTCCG	CACCCATCTT	GGCAACAAAT	GAACATAAC	9900
CATATTTACG	CAAGCGCTCT	CGGTATTTCC	GCTCTGTCTAT	GATAGACTTG	TGCTCAAGTG	9960
GTGTATCTTT	AGGATCAATC	ACCACATAAG	CCGCAAAGTA	GATAACTTCC	TCGAGGGCAC	10020
GAGGGCTCAT	ATCAAGGGTC	AAGCCCATAC	GGCTTGGAA	CCCTTTGAAG	TACCAGATGT	10080
GAGATACAGG	AGCTTTTCAA	TCGATATGTC	CCATACGCTC	ACGACGAAC	TTCTACGGG	10140
TTACTTCAAC	CCACACGGG	TCACAAACAA	TTCTCTCTGA	ACGAATGCGT	TTGTACTTAC	10200
CACAAGCACA	TTCCCACTGT	TTTGTAGGAC	CAAGATACAC	TTATCAAAAG	AGTCTTTCAC	10260
GTCTGTGPTT	CAAGGTACGA	TAATTGATGT	TTTCAGGTTT	TTTGACTTCT	CCATTAAGACC	10320
ATGAACGGAC	TTTACTTGGG	GAAGCTAGGG	TGATTTGCAT	ACTTTTAAAA	CGATTTACAT	10380

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CAACCACAT	TTCTTCCCTT	TCTATTCTAA	GTGAAGTGT	TATTCPTGTT	CAGCAGCTTC	10440
TTCTGTTCCT	TCCGCTTTTG	TTGCTTTCTC	AGCTTCTTCA	GCTTCAAGG	CTGCTTTAGC	10500
CTCTTGGGCT	GCTTTTTCGC	GGGCTTTTTC	AAGGTCACT	ACGTGATGA	CATCTTCGTC	10560
CATTCCTCA	TCCAGTCCG	GAAGTCCAC	TTCTTGGTCA	TCTTCGTCTA	GGACACGCAT	10620
GTCAAGTCCA	AGAGATTGCA	ATTCTTTGAC	AAGAAGTCCG	AAGGATTCG	GAACACCTGG	10680
TTTTGGAATT	GGTTTGCTT	TTGTAAATAG	TTCAATAGGCT	TTCAAAAGCTC	CGTTGATATC	10740
GTCCGACTTG	TAAGTCAAGA	TTTCTTGAAG	GACATTTGAC	GCACCGTAGG	CTTCAAGAGC	10800
CCAAACCTCC	ATCTCACCGA	AACGTTGTCC	ACCAAACTGA	GCTTACCTC	CGAGTGGTTG	10860
TTGGGTAAAC	GTTGATGATG	GTCCGACTGA	ACGCGCGTGC	AATTTATCAT	CAACCATGTG	10920
GTGGAGTTTG	ATCATGTACA	TGACTCCGAC	AGAAACACGG	TTATCAAAGC	GTTCACCACT	10980
ACGTCCATCG	TAAAGGATCG	TTTTGGCATC	GCTATCCATA	CCTGCTCTT	TAACAGTTGA	11040
CAAGAAGCTT	TCAGAAGCTT	CTCCATCAAA	GACTGGTGTA	CGGATGTGAA	TACCAAGAGT	11100
ACGAGCTGCC	ATACCAAGGT	GAAGCTCCAT	AACCTGACCG	ATATTCATAC	GTGATGGTAC	11160
CCCAAGTGGG	TTCAACATGA	TGTCGACTGG	AGTTCGCTCT	GGAGGTAAAG	GCATGTCTTC	11220
TACAGGAAGC	ATACGAGAGA	CAACCCCTTT	GTTCCTCGTCA	CGTCCGCCA	TTTATCTCTC	11280
GACCTTAATC	TTACGTTTTT	GAGCGATGTA	AACACGAACC	AACATGTTAA	CACCTGATTC	11340
CAACTCATCT	CCATTTACAC	GTGTAAAGAT	CTTAACATCA	CGAACGACAC	CATCGGCACC	11400
GTGTGGTACA	CGAAGGAAG	TATCACGCAC	TTCAAGAGAC	TTCTCTCCAA	AGATAGCGTG	11460
CAAGAGAGCT	TCTTCAGCTG	AAAGATCTTT	CTCACCTTAA	GGTGTACTT	TACCTACAAAG	11520
AATATCACCT	TCTTTAACCT	CAGCACCAAT	ACGGATAATC	CCCATTTCTG	CAAGGTCTTT	11580
GAGGGCATCT	TCACCAACGT	TTGGAATTTT	CGGAGTGATT	TCTTCAAGCC	CAAGCTTTGT	11640
ATCGCGGCTT	TCATGATCTG	ATTCTTCAAG	GTGAACAGAT	GTCTAGACAT	CGTCCCTCAC	11700
CAAGCGTTTC	CTCATGATAA	CGGCATCTTC	GAAGTTGTAA	CCTTCCCAAG	TCATGTAGGC	11760
AACGATTGGG	TTTTGTCCAA	CGGCCATTTT	TCCATTTTCC	ATAGAAGGTC	CGTCAGCGAT	11820
GAATTCGCCCT	TTTTCAACGA	CATCACCAAC	TTTTACGAGA	GTGCGTTGGT	TGTAAAGCAT	11880
ACCTGAGTTT	GAAGACGGGA	ATTTTGGGAT	GTGGTAAACA	TCCAATGAAC	CATCTTCACG	11940
ACGAACTTCT	ACCTTGCTCAG	CATCTCGGTA	AGTAACTTTA	CCATCATACT	GAGCAATCAC	12000
AGCCGCACCA	GAATCGTGGG	CTGCTTGGTA	TTCCATACCA	GTACCAACGT	AAGGTGCGTG	12060
AGGATTAACT	AATGGCACAG	CCTGACGTTG	CATATTGGCT	CCCATGAGGG	CACGTTTGGG	12120
GTCTATCTTT	TCCAAGAAAG	GAATACATGC	TGTCGCAAGG	GCAACTACCT	GTTTGGTGA	12180

AACGTCACATG	TAGTCAACAA	TATTAGCTGG	ATACTCTTGG	TTGACCCCTT	GGTGACGTCC	12240
CATGACAATC	TCTCAGCAA	AGGTTCCATC	TTCAATCAGA	CGAGAGTTAG	CCTGAGCTAC	12300
AGTATATTCA	TCTTCTTCAT	CAGCTGTCAA	CCAAACAATT	TGCTCGTGA	CAACACCTGT	12360
TTCAAGGTCA	ACCTTACGGT	ATGGTGTTFG	AACAAAACCA	TATTTGTTC	AGTGTCATA	12420
AGATGACAAG	TATTTGATCA	AACCGATGTT	AGGTCCTTCA	GGTGTCTCGA	TTGGACACAT	12480
ACGACCATAG	TGAGTGTAGT	GCACGTCAOG	TACTTCATAT	CCAGCACGGT	CACGAGTCAA	12540
ACCACCAGGT	CCTAAGGCTG	ACAAACGGCG	TTTGTGAGAC	AACTCAGAAA	GCAGGTTGTG	12600
TTGCTCCATG	AACTGTGACA	ACTGTGATGA	ACCAAAGAAT	TCTTTAACTG	CAGCTGTTAC	12660
AGGACGGATA	TTGATAATTT	GTTGTGGTGT	CAAGACTTCA	TTGTCCGTAA	CAGACATACG	12720
TTCAACGACA	TTACGTTCCA	TACGAGAAAG	TCCAAACGTT	ACTTGGTTGG	CAAGCAATTC	12780
ACCAACCGCA	CGGATACGAC	GATTTCCAAAG	GTGGTCGATA	TCAATCTACAC	GGCCAAGTCC	12840
TTCAAGCCAAG	TTGAGGAAGT	AGCTCATCTC	AGCAAGGATA	TCTGCAGGAG	TCACCGTACG	12900
AACCTTGTCA	TCTGGGTTAG	CAATACCAAT	GATCGTTACG	ACGGATCTGT	GATCAGTTGG	12960
AGCAATAACC	TTGAATTTTT	GAAGAAACAC	AGGCTCAGTC	ACAAACGGCTG	CATCGTTTGG	13020
GATGTAGACA	ATCTTGTTC	AGTCGCCATC	CAATGGCTT	TCAATGCTTT	CAATCACGCT	13080
ACGAGTCATA	ATCGTACCAG	CTTCTACCAA	GATTTCTCCA	GTFTTCAAGGT	CTACCAATGG	13140
CTCTGCAATG	GTTTGGTTGA	GCAAAACGTGT	TTTAAACATTG	AGTTTTTTTAT	TGATTTTGTG	13200
ACGACCAACT	GCTGCCAAGT	CATAACGACG	TGGTCAAAG	AAGCGAGCTA	CAAGCAAGCT	13260
ACGTGAGCTT	TCAGCCGCTT	TAGGCTCACC	TGGACGAAGG	CGTTCTGTAAA	TTTCTTTCAA	13320
GGCTTGTCT	GTACGAGAGT	CCATTGGATT	CTTGTGGATA	TCTTTTTCAA	CAGTGTTCGG	13380
AACCAATTCG	CTGTACCAA	AGATATCAAA	GATTTTCATCA	TCACCTGAGA	AACCAAGAGC	13440
ACGAACCAAG	GTTGTAAATG	GAATCTTACG	AGTACGGTCG	ATACGAGTGT	AGGTGATATC	13500
TTTTGAGTCG	CTTTCAGTT	CCAACCAAGC	TCCACGGTTA	GGGATAACAG	TTGAACCATG	13560
GCCCACTTCA	CCATTTTTGT	CTACTTTTTC	GTTAAAGTAA	ACACCTGGTG	AGCGGACCAA	13620
CTGAGAAACG	ATAATACGTT	CACCACCAT	GATGATGAAA	GTACCCATTT	CTGTCTATGAT	13680
TGGGAAATCA	CAAAAGAAAA	CTTCTTGGGT	CTGATTTCG	CTTGTTCCTT	TATTGATCAA	13740
ACGGAAGGTT	ACAAAAATTG	GTGCTGAGTA	GCTAGCATCG	TGGATACGAG	CTTCTTCTAG	13800
CGTATATTTT	GGTTCCTTGA	TTTCAATATCC	AACAAATTC	AACTCCATTG	TGTCGTGAA	13860
GTTTGAATTT	GGCAATACAT	CTTCAAAACAC	TTCTTAAAGA	CGGTGGTCTA	GGAAAGCTTT	13920

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GAATGAGTCA GTTTGAATTT CAATCAAATT TGATAGTCA AGAACTCTT TGATCTTGA	13980
AAACTACGA CGGATACGAT GTTTCGGTA TTGAACGTCA TGCTCTGCCA AGATGATTCT	14040
CCTTTGTAAA TAAGTTCCAA GCCTTGTCAA TCAGGCTTTT CTAATCGTCA TATGTTGTA	14100
AACCCCTTAT CACCGTGTCC TCTTGACGAA TTTTCAGAA CTTTAAAGCT CTTTACAAA	14160
TGCTCAAAAT CTTGAAAAA AGCACAAAA GAGCAGCTAA ATCTGACTTT TTCAGAGAT	14220
TTAATCTGTG TGAGCCTTGT CTGACAATA TTTTCAGCAA AACCTACGAC AAATGATTAC	14280
CCATATTATA CCTATTATT CTAGATTTTT CAAGGGGTTT CAGTAGGTTT TTGTTAAATT	14340
TTTTCCCAT GAAACTTGG CATCACATTC GAATCAGCT ATGTTACAAA AACTGAAAA	14400
AACTATTGAC TGAATAATCAT TTTCAAGGTA TAATAATAAA CGTTAAGGCG GTATAGCCAA	14460
GTGTAAGGC ACGGCTCTGC AAAAGCTTGA TCCTCGGTTT AAATCCGTCT ACCGCTTCT	14520
ATAACTTGAT TTATCAGGTT TCAAAATGAAC AGAAAGCCCA ATTTGAAGGG CTTTTTTAT	14580
TTTCCCTCGA ATAAATACGT ATAACCTTAA AAACCTTTGG ACGCAGTTTG TGGCAGAGTT	14640
CTTTCCATGG CATAATTCCC TTTTGAAATC AG	14672

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7902 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

AGGAGACTAT TCAAGCCCAA ATTgAGTAGC CCAGCAAGA CTGTATAGAC TGATATACGT	60
TTTTCATAGC CATTGTTAAA GAGAATTTGG GAACCAAGAA TGGTATCTAA GGCCAGGATA	120
ATCGTACGAA AAGCGAAGAG AGAGGTCAAG ATGCCGCCCT CGATATATTT TTTCACTACG	180
TAAAGTAGGA TGGCATTGCG TCCTAAAACC ATGAGTCCAA AACTCAGTGG AATGATAAAG	240
AAGTTAAAGA TTGACTATCC TCTATTAAAC AGAGAAACAT AGGCTTCTTT GTCTCCTTTC	300
CCCAGTAGT AACTGAGACG AGGCACACTC ACTCCAATTG CACCTGTATC AACCACAGCT	360
ATAACCGTCA CAATTGCGTG AGCTATGGTA TAGTAACATA CGTTGACATC AATCCCTGTT	420
TTAACGAGGA AGAGGCGATC TAAAAAAGTG AAGAGCATAT TGGCATTGGC AAAGACTAAC	480
ATGGCTGTCA GAGGGAGAAA GAGTGTTTAA AAATCACTTA GGTGAATTTT AACAGTTTG	540
ATGCTCTCTT TAATCCAAAA ATAACATAAC AGGTAGTTAA TCAGGGTCTGA TAAATCATC	600
ACAAGTGAT AGACAACAAT ATCGTGTCTA TTTTAAACAA ATAAGAAAAT AGAGACCAGC	660

ATCAGGATAC	GGATGAAGGC	AGTTTGTAA	AAGAGAAAAC	TGTAATTTTC	CAGAGCTTCA	720
TTGACCCATT	CGATTGAAAA	AATCTGGGCA	ATGAGTTGAA	TCCCCATAAC	AAGGTAGACC	780
TTTTTGGACGA	TTGGATTATC	AGTAAGAAG	AGAGGATAGG	CTAGGATATA	GACGACAGTG	840
GTCAAAATCG	TACAAAGGAT	GCACAAATAA	AAAAGACTAG	AAAAGGTTCT	GTTAAGATCT	900
TTTTTGTATT	CCTTGACATT	ACTGATAGCC	CTTAACCGT	AGTTATAGAC	ACCATAGTCT	960
GCAAGGGCA	AGAAAAATGA	CAAAATAGTG	TCGACTGAGT	TGAAGTAACC	ATAGTCAGTT	1020
CGGTCCAAGA	CACGCCGCGC	ATAGGTTCCA	GTTAGGATGG	GA AAAATAMT	ATTCAAGACA	1080
CGAATCCCA	TGTAAGATAG	AGCATTTAAT	TTTATACTTT	TCATTCAAT	TACCTCGTTT	1140
TTCAATTATAT	CATAAAGTTA	GCTAATAAGA	AATGAAGGGC	AGTAAGTCAA	GTAATCACTT	1200
TGAAGTTTCA	AATCTTAAGT	TTTAAGTTTT	CTTTAAGGAA	AGTATATTAT	TCTGAAGGAC	1260
TCTAAAATTT	CGCAGCCATT	TATTAGTAAT	TGCTACAGAA	TTCTAGTCA	TTACTAGAAA	1320
TGACTAGATT	TCTTTGAATA	ATAGAACTGC	ATAATCTTCC	TATTTCTAGAA	GGGAGGAGCC	1380
AGTATTTCTT	TTATGATAGG	ACTAGATTGT	GGTATAATAG	AGAGAATAAG	TTTTTTTAGT	1440
AAGACAAAGG	AGAAAAATAGA	TGATTTATGC	AGGAATCTT	CCCGGTGGAA	CTGGCACACG	1500
CATGGGGATC	AGTAACCTGC	CAAAACAATT	TTTAGAGCTA	GGTGATCGAC	CTATTTTGAT	1560
TCATACAATT	GA AAAAATTG	TCTTGGAGCC	AAGTATTGAA	AAAAATTGTAG	TTGGTGTTC	1620
TGGAGACTGG	GTTTCTCATG	CAGAAGATCT	TGTAGATAAA	TATCTTCTCT	TTTATAAGGA	1680
ACGTATCATC	ATTACAAAGG	GTGGTGCTGA	CCGCAATACA	AGTATTAAAG	ACATCATTTGA	1740
AGCCATTGAT	GCTTATCGTC	CGCTTACTCC	AGAGGATATC	GTTGTTACCC	ACGAATCTGT	1800
TCGTCCATTT	ATTACACTTC	GCATGATTCA	GGACAATATC	CAACTTGCCC	AAAAATCATGA	1860
CGCAGTGGAC	ACAGTGGTAG	AAGCGGTTGA	TACTATCGTT	GA AAACATCA	ATGGTCAATT	1920
TATTTACAGAT	ATTCCAAATC	GTGCTCACCT	TTATCAAGGA	CAAAACCTC	AAACATTCGG	1980
TGCAAGGAC	TTTATGGACC	TTTATGGATC	TCTTTCTGAT	GAGAGAGAAG	AAATCTTGAC	2040
AGATGCATGT	AAATCTTTG	TGATCAAAGG	AAAAGATGTG	GCTTTGGCCA	AAGGTGAATA	2100
CTCAAACTCG	AAGATTACAA	CGTAACAGA	TTTGAAGATT	GCAAAAAGTA	TGATTGAGAA	2160
AGACTAGTAA	AATGATTAAAT	CAAAATTTATC	AATCAACTAA	GCCTAAGTTT	ATCAATGTCA	2220
AATATCAGGA	AGAGGCTATT	GACCAAGAGA	ATCATATCCT	TATCCGTCCC	AACTACATGG	2280
CTGTCTGTCA	TGCGGATCAG	CGTACTATC	AGGGAAAACG	TGATCCCAAG	ATTTTGAATA	2340
AAAAGCTTCC	ATGCGCAATG	ATTACAGAGT	CATGTGGAAC	CGTCAATTTCT	GACCCGACCG	2400

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GAACCTACGA	GGTTGGTCAA	AAAGTTGTCA	TGATTTCCCAA TCAGTCTCCCT ATGCAGAGTG 2460
ATGAAGAATT	CTATGAAAAC	TACATGACAG	GGACCCATTT CTGTCTAGT GGATTTGATG 2520
GCTTTATGAG	AGAGTTTGTT	TCTCTCCCTA	AAGATCGTGT GGTGGCTTAT GATGCTATTG 2580
AAGATACGGT	TGCAGCCATT	ACAGAGTTTG	TCAGTGTGGG CATGCACGGT ATGAATCGTC 2640
TATTGACTCT	TGCTCATAGC	AAGCGGAGC	GGATCGCGGT TATTGGAGAT GGAAGTTTGG 2700
CTTTTGTGGT	TGCCAATATT	ATCAACTATA	CTTTGCCAGA AGCAGAGATT GTGGTTATTG 2760
GTGCTATTG	GGAAAJGTTG	GAACTCTTCT	CATTTGCCAA AGAATGCTAT ATTACGGATA 2820
ATATTCCCTGA	AGATTTGGCC	TTTGACCATG	CTTTTGAATG TTGTGGTGGT GATGGTACTG 2880
GACCAGCTAT	TAATGACTTG	ATTCGCTACA	TTGCTCCTCA GGGAAACGATT CTCATGATGG 2940
GAGTTAGCGA	ATATAAAGTC	AATCTCAATA	CTCGCGATGC CTTAGAAAAAG GGCTGATTG 3000
TGGTTGGGTC	ATCTCGTTCT	GGTGGCATG	ATTTTGAAAA TGCTATCCAA ATGATGGAG 3060
TCAGAGAAAT	TGCCAATCGT	CTTAAAAATA	TCCCTTATCT AGAAGAACCT GTAAGAGAAA 3120
TTAAAGACAT	TCATCGTGTG	TTTGCAACCG	ATTTAAACAC AGCCTTTAAA ACAGTGTTTA 3180
AGTGGGAAGT	ATAAGTACTG	GAGCTTAAT	GTGGAGAAAA TCATTAAAGA AAAAATTTCT 3240
TCCCTTACTTA	GTCAGAGAAG	GGAACTCCTC	AGTGTGTAAC AACTGGGTGG AATGACCAAT 3300
CAAACTATT	TGGCCAAAAC	AACAAATAAG	CAATACATTG TTAATTTCTT TGGTAAAGGG 3360
ACAGAAAAGC	TTATCAATCG	ACAAGATGAA	AAGTACAATC TTGAACACTT AARGATTTA 3420
GGCTTAGATG	TAAAAAATTA	TCTTTTGGAT	ATTGAAGCTG GTATCAAGT AAATGAGTAT 3480
ATCGAATCTG	CGATTACGCT	TGATCAACG	TCAATCAAGA CCAAGTTGGA CAAAATTACT 3540
CCAATATTAC	AAACTATTCA	TACGTCTGCT	AAGGAATTAA GAGGAGAAAT TGCTCCTTTT 3600
GAAGAANTCA	AAAAATACGA	ATCCTTGATT	GAAGAACAAA TTCCCTATGC CAACTATGAA 3660
TCGTGTAGAA	ATGCAGTCTT	CTCCTTAGAG	AAAAGACTGG CTGACTTAGG TGTGACAGA 3720
AAATCTTGTC	ATATCGATTT	GGTGCCTGAA	AACTTTATCG AATCACCTCA AGGACGACTT 3780
TATTTGATTG	ACTGGGAATA	TTATCAATG	AATGATCCAA TGTGGGATTT GGCTGCCCTC 3840
TTTTTAGAGT	CTGAATTCAC	TTCCCAAGAG	GAAGAAACTT TCTTATCTCA CTATGAGAT 3900
GACCAACAC	CGGTTTCTCA	TGAAAAGATT	GCTATTTATA AAATTTTACA AGATACTATT 3960
TGGAOTTTAT	GGACTGTCTA	TAAAGGAAG	CAAGGTGAAG ATTTTGGTGA CTATGGTGTG 4020
AATCGTATCC	AAAGAGCTAT	TAAAGGTTTG	GCTTCTTATG GAAGTTCAGA TGAAGAGTAA 4080
AAACGGAGTT	CCTTTTGGCC	TTCTCTCAG	TATTTTCTGG GGCTTGGGTC TAACGGTTAG 4140
TGCTTATATC	TTTTCGATTT	TTACAGATTT	GTACCCCTTT GTGGTGGCTG CAACTCATGA 4200

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CTCAATTTTC TTAATATTC GCAATGTGAG TGTATCAIV GGAGCCTGC TAGCAGGCC	4320
TATCGGTATG CAGGCCAATC TTTATGCAGT TAAGTATATC GGAAGTCTT TAGCTTCAATC	4380
TGTATCGGT ATTTACCCTG CGATTTCAGT TCTATGGGT TTCTTCTTT TGAAGCACA	4440
GATTTCGAAA AATACTGTAT TTGGGATTGT CTGATTAT TTGGGGATTA TTGCTCAGAC	4500
CTATAAGGTT GAACAGGTTA ATTCTTTCTA CATTTGGATT CTTTGTGCTT TGGTTTGTGC	4560
TATTGCATGG GGAAGTGAAG GTGTTCTTAG CTCTTTTGGC ATGGAAAGTG AATTGAAGTA	4620
AATCGAAGCC CTCTTAATCC GTCAAGTAAC TTGTTCTTG TCCTATCTTG TGATTGTGCT	4680
CTTCTCTCAT CAGTCATTTA CTGCAGTAGC CAATGGACAA TTGCTAGGTC TCAATGATTGT	4740
TTTTGCAGCC TTGATATGA TTTCTTACTT GGCTTATTTAT ATCGCTATCA ATCGCTTGCA	4800
ACCGAGCAAG GCTACAGGCT TGAACGTGAG CTATGTAGTA TGGACGGTCT TGTTCAGAT	4860
TGTTTTCTTG GGTGCACCGC TAGATATGCT GACCATTAAT ACGTCACCTG TCGTCAATGC	4920
TGGAGTTTAT ATTAATATTA AAGAATAAAG GAGATTCTGT TGAAGGCCAT TATCTTAGCA	4980
GGGGATTGAG GAACCTGCTT GCGTCTATG ACTGAAATA CCCCTAAAGC CTGGTTTCAG	5040
GTTAATCAAA AACCTTTGAT TGAGTACCAA ATTGAGTTTC TCAAAGAAAA AGGAATCAAT	5100
GACATCATCA TCATTGTTGG TTATCTTAAA GAACAATTCG ATTACTTGAA AGAGAAATAC	5160
GGTGTCTGCT TCGTTTCAA TGATAAATAC GCTGACTACA ATAACTTTTA CTCTCTCTAT	5220
CTGTAAAGAG AAGAATTGGC CAACAGCTAT GTTATTGATG CTGACAATTA TCTCTTAAA	5280
AATATGTTCC GCAATGATTT GACACGTCG ACTTATTTTA GTGTTTATCG TGAAGATTGT	5340
ACCAACGAAT GGTCTTGGT TTATGGAGAT GACTACAAGG TTCAAGACAT TATTGTTGAT	5400
AGCAAGCGAG GTGCGATCCT TAGTGGTGTG TCCTTCTGGG ATGCTCCAAC TGCAGAAAG	5460
ATTGTCAGCT TTATCGACAA GGCTTATGTA AGTGGTGAAT TTGTTGATCT CTATTGGGAC	5520
AATATGGTTA AGGATAATAT CAAAGAGCTA GATGTCTATG TTGAAGAAAT AGAAGGCAAT	5580
AGCATTATAG AGATCGATAG TGTCCAAGAC TATCGTAAAT TAGAAGAAAT TCTTAAAAAC	5640
GAAATTAATA GATTCCAACA TCTGACAAAA TAGTCGATG TTTTGTGATT TTTTACGAAC	5700
TTTTACGAAT AGATAGATGA GTAGAAAAAG AATTCGAGTT ATTATGAAA ATCACAAACT	5760
ATGAATCTTA TAAGTAAAAA AAATCAGGTT TGACCAATCA ACAGATTTTG AAAGTGCTAG	5820
AATACGCTGA AAATGTTGAT CAGGAGCTTT TGTGGGTGA TATTGCAGAT ATCTCAGGTT	5880
GCGTAATCC AGCCGTTTTT ATGGAACGTT ATTTTCAGAT AGACGATGCG CATTGTGCA	5940

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AAGAGTTTCA AAAATTTCCA TCTTCTCTA TTTTAGATGA CTGTTATCCT TGGATTGA	6000
GTGAAATATA TGATGCGCCT GTACTTTTAT TTTCACAGGG AAATCTTGAC CTCTGAAAT	6060
TCCCGAAGGT AGCGTGCGTG GGCAGTCGTG CTTGTAGCAA ACAGGAGAGT AAGTCAGTTG	6120
AAAAAGTCAAT TCAAGGCTTG GAAATGAAC TGGTTATTGT CAGTGGCTG GCCAAGGGCA	6180
TTGACACAGC AGCTCATATG GCAGCTCTTC AGAATGGCGG AAAAACCAAT GCAGTGATTG	6240
GAACAGGACT GGATGTGTTT TATCCTAAAG CCAATAAACG CTTGCAAGAC TACATCGGCA	6300
ATGACCATCT GCTTCTAAGT GAATATGGAC CTGGTGAACA ACCTCTGAAA TTTTATTTTC	6360
CTGCCCCATA TCGCATCATG GCTGGACTTT GTCGTGTGT GATTGTAGCA GAGCTAAGA	6420
TGCCTTCAGT TAGTCTCATT ACCTGTGAGC GAGCAATGGA AGAAGGACGC GATGTCTTTG	6480
CTATTCTGGT TAGCATTTTA GATGGACTAT CAGACGGTTG CCATCATTTG ATTCAGAAG	6540
GAGCAAAATT GGTCAACCAT GCGCAAGATG TTCTTGGGA ATTTGAATTT TAAAAATGAC	6600
TTAGCTAGCA ATTTCAAGAA AAAATCAATT TTAGAGAAA ATGAACCCAA CATTTCATA	6660
ATAAAAAGCA TATTAGCAAG TTTTAAACAC TTGATAATAT GCGTTTPTTC TAAGTGGATT	6720
AGTAGACTAG AGGATTTTTT TCATATAATA CTCTTCGAAA ATCTCTTCAA ACTACGTCAG	6780
CTTCCATCTG CAACCTCAAA ACAGTATTTT GAGCGaCTtC GTCAGTCTTA TCTACAACCT	6840
CAAGCAGTG CTTTGAGCAA CCTGTGGCTA GCTTCTAGT TTGCGCTTTG ATTTTCATTG	6900
AGTATAAGGG AAGTATAGT GAATTGAAT AAGATGTGAA CAATCTATC AGGAAAGTCA	6960
AATTAAATTA TAGAATATT TTAGCAGCCA AGGTGTACTG TTATAGATTC AATTACACTA	7020
TAATTTAGTG TAATTGAGAA AGGAGAAATG ATTGTGATG ATGTTGGCTA GOTTATGTTT	7080
AATGATTCCT ACCGTCTCAA ATCTGTCTAG TAAGGAAAAA TAAATCTTTC AAAAGTAGAG	7140
ATTACAAAGC TTGTTTAAGA AAGAAITCAA AGACCTTGAC AAATAAAAAA AAAATGGTTA	7200
TTATAAAAAA TGCTCTGAAA TAGATGATGA TACTTTTCGA AAATCTCTTC AAATACGTCA	7260
GCTCAGCTTT GCCTTGCTGT GTTTTGAGCA AGCTACGGTT AGCTTCCGAG TTTGATTTTC	7320
ATTACTAGTA AATGAAGCTG ATGAGAGATA TCACTAGACA TTTGAGTCAG GATATTATTG	7380
AAAAATGATA AAAGAGCTCG TGAGATTGGC ATATCAGACT ACTAAAGTAT TGAGTTTGGT	7440
AGGATTTTAG CGACTAGTTA GCTGGGAAAG GAAGATATTG GTGACAAATA ATAAACTGTA	7500
TTGTTGATA GAATTAGAA ATAAAAATATA TGAAGAATTA GAACTTTCCA GAAGTGATT	7560
AGCGATTTTA CTATGTGCCA TGCTTATCGC CTCTATCGGA TTAATATATG ATTCGACTCC	7620
COTGATTATT GGAGCCATGT TAATCTCTCC TTTGATGACA CCTATTCTGG GACTGGGGCT	7680
CTCTCTAGCT ATATTTGATT TTAATTTGTT AAGAAAATCT TTTAAATAT TAGCTATTCA	7740

819

AATCTTGCC AGTCAANTAG CTTCAACACT TTATTTTTAT CTTTCTCCCA TTTCGFATGC	7800
TAGTTCGGAG ATTGTTGCTA GAACCTCTCC GACTATTGG GATGTTCTCA TTGCTTTTGT	7860
AGGAGGATA GCAGGTATCA TTGGTGCTAG GAAAAAGAG AC	7902

(2) INFORMATION FOR SEQ ID NO: 113:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18627 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

GAAGTTGAAA TGGCCAGCTG ATGAGCANTA TCGGTCATAG AAATCTTCTC AATCAACTTT	60
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820	
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822			
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CTCTATGGCT GGTGATGGTG CCTTCTTGT CACATCTGAG GGAGCTTACT TCGCTAAACC	13740
AATCAAAGGA ACAGTCAAAA ATTCAAGTTGG AGCTGGTGAT TCTATGGTTG CTGGATTACAC	13800
AGGTGAATTT GTCAAAATCAA AAGACGTAGT AGAAGCCTTC AAATGGGGAG TGGCTTQCGG	13860
AACGGCAACT ACCTTCTCAG ATGACTTGGC AACGGCGGAA TTTATTAAAG AAACATATGG	13920
AAAGTTGAG GTAGAAAAAC GATGAAAATT CAAGACCTAT TGAGAAAAAG TGTATGTTG	13980
CTAGATTGCG AGGCAACTGA AAAACAGCTG GTCATCGACG AGATGATTAA AAATTGACA	14040
GACCAAGCTT ATGTAACAGA TTTTGAAACA TTTAAGAAG GAATTTTGGC GCGTGAAGCT	14100
TTGACTTCTA CTGGTTTGGG TGAATGAATC GCAATGCCTC ACAGCAAAAA CGCTGCTGTC	14160
AAAGAAAGCA CAGTTCTATT TGCTAAGTCA AATAAGGGTG TTGACTACGA GAGCTTGGAT	14220
GGACAAGCAA CTGACCTCTT CTTCATGATT GCAGCTCCAG AAGGTGCCAA TGATACTCAC	14280
TTGGCAGCCT TGGCAGAATT GTCTCAATAC TTGATGAAAG ACGGTTTTGC AGACAAACTT	14340
CGTCAAGCAA CATCTGCAGA CCAAGTTATC GAACTTTTTG ACCAAGCTTC AGAAAAAACT	14400
GAGGAACFTG TTCAGCACC TGCTAATGAC TCTGGTGACT TTATCGTAGC TGTTACAGCT	14460
TGTACAAACAG GTATTGCCCA CACTTACATG GCCCAAGAAG CCCTTCAAAA AGTAGCTGCT	14520
GAAATGGGGG TTGGTATCAA GGTGAAACCC AACGGTGCTA GCGGTGTTGG AAATCAACTA	14580
ACTGCAGAAG ATATCCGTAA GGCTAAAGCT ATTATCATTG CAGCAGACAA GGCCGTTGAA	14640
ATGGATCGAT TTGATGGAAG ACCATTGATC AATGCTCCAG TTGCTGACGG TATCCGTAA	14700
ACAGAGAGAG TAATTAACCT GGCTCTTTCA GGAGATACAG AAGTCTACGG TGCCGCTAAT	14760
GGTGCCAAAG CTGCAACAGC CTCTAAAGAA AAACAAGGCC TTGGTGGTGC CTGTACAAA	14820
CACCTGATGA GTGGTGATC TCAAAATGTA CCATTCOTTA TCGGTGGTG TATCATGATT	14880
GCCTTGCCT TCTTGATTGA CGGTGCTTTG GGTGTTCCAA ATGAAAACTT TGGCAATCTT	14940
GTTCTTACC ATGAGTTAGC TTCTATGTTT ATGAAAAATTG GTGAGCTGCG CTTTGTTTG	15000
ATGCTTCCAG TCTTTGGGGG TTATGTTGCC TACTCTATTG CTGAAAAACC GGGTTTGGTA	15060
GCAGGTTTGG TGGCTGGTGC TATTGCCAAA GAAGGTTTTG CCTTTGTAA AATTCTTTAT	15120
GGCGAGGTG GTGAAGCAAC TTCAACTCTT GCAGGTGTCT CATCTGGTTT CCTAGGTGCC	15180
CTTGTTGGTG GATTTATGCG AGGTGCCTTG GTTCTTGCCA TCAAGAAATA CGTTAAAGTT	15240
CCTCGTTTCC TCGAAGGTGC TAAATCAATC CTTCATTATG CACTTCTTGG AACAACTTTG	15300
ACAGGATTTG TTATGCTAGC TGTGAATATC CCAATGGCTG CAATCAACAC TGCTATGAAT	15360

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GACTTCCTAG	GCGTCTTGG	AGGAGGTTC	GCTGTCTTC	TTGGTATCGT	CCTTGGTGG	15420
ATGATGGCTG	TTGACATGGG	TGGACCAAGT	AATAAAGCAG	CTTATGTCTT	TGGTACAGGT	15480
ACGCTTGCAG	CAACTGTTC	TTCAAGTGGT	TCTGTAGCCA	TGGCAGCAGT	TATGGCTGGA	15540
GGAAATGGTGC	CACCACTTGC	AATCTTTTGT	GCAACTCTTC	TTTTCAAGA	TAAATTTACT	15600
AAGAGAGAAC	GTAACTCTGG	TTTGACAAAC	ATCATCATGG	GCTTGTCAAT	TATCACTGAG	15660
GGAGCAATTC	CATTTGGTGC	CGCTGACCCA	GCTCGTGGCA	TTCCAAGCTT	CATCTCTGGT	15720
TCAGCAGTAG	CAGGTGGACT	CGTTGGTCTT	ACTGGTATCA	AACTCATGGC	GCCACACGGA	15780
GGAAATCTTC	TTATCGCCCT	TACTTCAAAT	GCTCTCCCTT	ACCTCGTTTC	TGTCTTGGTA	15840
GGAGCAATCG	TAAGTGTGT	GGTTTATGGT	TACCTACGCA	AACCAACAGC	ATAAAAAATA	15900
GAAAAATGAA	AAGATTGGAC	CGTTTGGTGC	AGTCTTTTTC	TCTTCCCGAA	ATGCCCTGTA	15960
AATATGGTAT	AATGAGAA	TGGCAACAA	GAATACAAAT	ACAACAAGAC	GGAGACCTTC	16020
TAAGACGAA	CTGGAAGAA	AAGAAGCGAT	TCAACGAATG	TTGATTTGGT	TAGGAATGTC	16080
GATTTTATATG	ATTTTCGCAG	CCTTCAAAT	AGGGCTGCA	GGTATAACCC	TTTATAATTT	16140
AATTCGCTTG	CTAGTGGGTA	GCTTAGCTTA	TCTGGCGATA	TTGGGCTTAT	TAATCTATCT	16200
CTTCTTTTTT	AAGTGGATAC	GAAAAACAGG	AGGACTCTTA	TCTGGCTTTT	TCACCATATT	16260
TGCTGCTTAA	CTCTTGATTT	TTGAGGCTTA	CTTGCTTTTG	AAATATGGTT	TGGACAAATC	16320
CGTCTAAAA	GCGACCATGG	CTCAGGTTGT	GACAGATCTG	ACTGGTTTTT	GAACGACTAG	16380
CTTTGCTGGA	GGGGGCTTGA	TCGGGGTCGC	TCTTTATATT	CCAACAGCCT	TTCTCTTTTC	16440
AAATATCGGA	ACTTACTTTA	TTGGTTCTAT	CTTGATTTTA	GTGGGTTCTC	TCTTAGTCAG	16500
CCCTTGCTCT	GTTTACGATA	TTGCTGAAT	TTTCAGTAGA	GCTTTTGCCA	AATGGTGGGA	16560
AGGGCAGCAG	CGTCGAAAG	AGGAACGCTT	TGTCAAAACA	GAGGAAAAG	CTGGCCAAAA	16620
GGCTGAGAAA	GAGCTAGAT	TAGAACAGA	AGAGACTGAA	AAAGCCTTAC	TCGATTTGCC	16680
TCCTGTTGAT	ATGGAAACGG	GTGAATTTCT	GACAGAGGAA	GCTGTTCAAA	ATCTTCCACC	16740
TATTCAGAA	GAAAAGTGGG	TGGAACAGA	AATCATCTTG	CCTCAAGCTG	AACTTAAATT	16800
CCCTGAACAG	GAGATGACT	CAGATGACGA	AGATGTTTCT	GTCGATTTTT	CAGCAAGA	16860
AGCCCTTGAA	TACAAACTTC	CAAGCTTACA	ACTCTTTGCA	CCAGATAAAC	CAAAAGATGA	16920
GTCTAAAGAG	AAGAAAATTG	TCAGAGAAAA	TATCAAAATC	TTAGAGCAAA	CCTTTGCTAG	16980
CTTTGGTATT	AAGTAAACAG	TTGAACGGGC	CGAAATTTGG	CCATCAGTGA	CCAAGTATGA	17040
AGTCAAGCG	GCTGTTGGTG	TAAGGGTCAA	CGCATTTTCC	AATCTATCAG	ATGACCTGCG	17100
TCTAGCCTTG	GCTGCCAAAG	ATGTCGGAT	TGAAGCACA	ATCCCTGGGA	AATCCCTAAT	17160

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CGGAATTGAA GTGCCCAACT CCGATATTGC CACTGTATCT TTCCGAGAAC TATGGGAACA 17220
 ATCCGAAACG AAAGCAGAAA ATTTCCTTGA AATTCCTTTA GGAAGGCTG TTAATGGAAC 17280
 CGCAAGAGCT TTTCGACCTT CTAAATGCCC CCACTTGCTA GTTCGAGGTT CAACGGGTTC 17340
 AGGGAAGTCA GTAGCAGTTA ACGGCATTAT TGTAGCATT CTCATGAAGG CGAGACCAGA 17400
 TCAAGTAAA TTTATGATGG TCGATCCCAA GATGGTTGAG TTATCTGTTT ACAATGATAT 17460
 TCCCACCTC TTGATTCGAG TCGTGACCAA TCCAAGCAA GCCAGCAAG CTCTGCAAAA 17520
 GGTTCGGAT GAAATGAAA ACCGTTATGA ACTCTTTGCC AAGGTGGGAG TTCCGAATAT 17580
 TGCAGGTTT AATGCCAAGG TAGAAGAGTT CAATTCCAG CTCGAGTACA AGCAAATTCC 17640
 GCTACCATTC ATTGTCGTGA TTGTCGATGA GTTGGCTGAC CTCATGATGG TGGCCAGCAA 17700
 GGAAGTGGAA GATGCTATCA TCCGCTTGG GCAGAAGGCG CGTGCTGCAG GTATCCACAT 17760
 GATTCCTGCA ACTCAGCGTC CATCTGTTGA TGTCACTCTT GGTTCGATTA AGGCCAATGT 17820
 TCCATCTCGT GTAGCATTTG CGGTTTCATC AGGAACAGAC TCCCGTACGA TTTCGGATGA 17880
 AAATGGAGCA GAAAAACTTC TTGGTCGAGG AGACATGCTC TTFAAACCGA TTGATGAAAA 17940
 TCAATCCAGT CGTCTCCAAG GCTCCTTTAT CTCGAGTAC GATGTTGAGC GCATTTGGA 18000
 CTTCATCAAG ACTCAGGCAG ATGCAGACTA CGATGAGAGT TTGATCCAG GTGAGGTTTC 18060
 TGAATAAGAA GGAGATTTT CGGATGGAGA TGCTGGTGGT GATCCGCTTT TTGAAGAAGC 18120
 TAAGCTTTG GTTATCGAAA CACAGAAAGC CAGTGCTCTC ATGATTCAGC GTCGTTTATC 18180
 AGTTGATTTT AACCGTGGCA CCGTCTCAT GGAAGAACTG GAGATAGCAG GTGTCATCGG 18240
 TCCAGCTGAA GGTACCAAC CTCGAAAGT GTTACAACAA TAAAAAATA GCTTCTTTCC 18300
 AAGTTTGGAG GGAAGCTATT TTAGTGGCTA TTGATTGCTT TTATTTCTG AAGTTGGCGC 18360
 APTGGACTGT TTTTCGTTTT CAGTAGCAGG TTACTTTGAA GCAGGAGTAG AAGATCCTG 18420
 AGTTCGTTT TTCTGATCTT CTTTTTCTC TTCTTGACG CTAGATTTTG GTGTTTCCTC 18480
 TTGCTGTGTT TTTCTTGAC TAGTGTTAGT CTCCTTAGTT GGACTGGTGT TTTCTTTAG 18540
 GGATTCCTTT TGAATTTCTT TGACAAATGT TGTGCTCTGG CTGTCGTAG GTTCTTTTTT 18600
 AATATTTTTG TTATATCCA AGGCGTT 18627

(2) INFORMATION FOR SEQ ID NO: 114:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2560 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TAAAAACGT TACCTTGCTT CTGACGTTT AGCAGGTAG TCATTGAAAT TTAAAGATCA	60
AGATATTACA ATTGAAGAAA CGACTGAAAC AGCTTTTGAA GGAGTTGATA TTGCTCTCTT	120
TTGAGCAGGT AGTCTACAT CAGCTAAGTA TGCACCATAC GCAGTAAAG CTGGCGTGGT	180
AGTAGTAGAT AATACATCTT ATTTCCGTCA AAATCCAGAT GTTCTTTGG TTGTTCCAGA	240
GGTCAATGCT CATGCACTTG ATGCTCACA CAGCAATCATT GCCTGCCCTA ATTGTTCAAC	300
AATTCAAATG ATGGTGGCTC TTGAGCCGCT TCGCCAAAA TGGGCTTTGG ACCGTATCAT	360
TGTTTCAACT TATCAAGCCG TTTCAGGTGC TGTATGAGA GCAATTTCTG AGACACAACG	420
TGAACCTCGT GAAGCTTGA ATGATGGTGT GAAACCACT GATTTGCATG CGGAAATCTT	480
GCCTTCAGGT GGTGACAGA AACATTAATC TATCCGCTTT AACGCTCTTT CACAAATGTA	540
TGTTTCACT GATAATGATT ACACCTACGA AGAGATGAG ATGACCAAGG AAACATAAGA	600
AATTATGGAA CATGATAGCA TTGCAGTATC TCCACATGCT GTGCGTATTC CAGTCTTGTG	660
AGCTCACTCT GAGTCTGTTT ATATCGAAAC AAAAGAAATG GCTCCAATCG AAGAAGTAAA	720
AGCAGCTATC GCAGCCTTCC CAGGTGCTGT TCTTGAAGAT GATGTAGCTC ATCAAACTTA	780
TCCTCAAGCT ATCAATGCAG TTGGTTCCGG TGATACCTTT GTTGGTCTTA TCCGTAAAGA	840
CTTGGATGCA GAAAAGGAA TTACATATGT GGTGTTTCA GATAACCTTC TCAAAAGTGC	900
TGCTTGGAAC TCAGTTGAGA TTGCTGAAAC TCCTCATGAA CTGGGATTGG TTGCTCCAAC	960
AGCCGAATTG AAATTTGAAT TAAATATGTC ATATCGTTTA GGAGTTGAGA TGAACTCCTT	1020
CTTTGAATA GAGAGGTGTT TTCGTGCTTT ATCAGATTT AAAAAAATGT AAAATCATTA	1080
CAGCCTTTAT TACCCCTTTC CATGAGGATG GTTCCATTAA CTTTGTATGCT ATTCCAGCCT	1140
TGATTGAGCA TTTATTTGCC CATCATACGG ATGGAATCTT TCTCGCAGGA ACGACTGCTG	1200
AGAGTCCAAC TTTGACCCAC GATGAGGAGT TGGAGTTGTT TCGCGCTGTA CAAAAGGTG	1260
TCAATGGACG GGTTCCTTTG ATTGGGGGTG TAGTACTAA TGATACCGGT GACTCTATTG	1320
AGTTTGTCAA AGAAGTAGCG GAATTTGGTG GTTTCGCAGC TGGGCTTGCT ATTTGTCCTT	1380
ACTACACAAA ACCCTCTCAA GAAGGAGATG ATCAGCACTT TAAGACTATT GCAGATGCTT	1440
CTGACCTACC AATTATTATC TATAACATTC CAGGGCGTGT AGTTGTGAAA TTGACTCCAG	1500
AAACCATGCT TCGCTTGCTT GACCATCCAA ATATATCCGG TGTCAAAGAA TGTACTAGCT	1560
TGGCTAATAT GGCTTACTTG ATTGAGCACA AGCCTGAAGA GTTCTTTGAT TATACAGGTG	1620
AGGATGGAGA TGCTTTCCAT GCCATGAACC TTGCGCGGGA TGGGGTTATT TCTGTGCTCT	1680

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CTCATACAAA TGGGGATGAA ATGCACGAGA TGTTTACTGC GATTGCAGAA AGCGATATGA 1740
 AGAAAGCCCG AGCAATTCAG CGTAAATCA TTCTTAAGGT TAATGCTCTC TTCTCTTATC 1800
 CAAGTCCTGC TCCAGTTAAG GCAATTCCTA ACTATATGGG ATTTGAAGCT GGACCCACTC 1860
 GTCTACTCTT TGTTCAGCA CCAGAAGAG ATGCCAAACG CATTATCAAG GTTGCTCTAG 1920
 ATGGCGACTA CGAAGCAACT AAGGCCAAGT TAACAGGGGT CTTAAGACCA GATTACTAAT 1980
 AAGACAATA AAATCGGGCT CTTTGTCAAC TGTAGTGGGT TGAAGTCAGC TAAGCTCGAG 2040
 AAAGACAATA TTTTGTCTTT TCTTTTTTGA TATTCAGAGC GATAAAAAATC CGTTTTTTGA 2100
 AGTTTTTCAA GTTCCGAAAA CCAAGGGCAT TCGCTTGAT AAGTTTGATG AGATTATTGG 2160
 TCGCTTCCAA TTTGGGGTTT GAATAGGGTA GTTGAAGGT GTTGACGATT TTCTTTTTGT 2220
 CCTTTAGAAA GGTTTTAAAG ACAGCTGAA AAATAGGATG AACCTGCTTC AGATTGCTCT 2280
 CAATGAGTCC GAAAAATTC TCCGGTCTCT TATTCAGAAA GTGAACAGC AAGAGTTGAT 2340
 AGAGCTGATA GTGATGTTTC AAGTTTGTG AATAGCTCAA AAGCTGTGTT AAAATCTCTT 2400
 TATTGGTTAA GTGCATACGA AAAGTAGGAC GATAAAATCG CTTATCACTC AGTTTACGGC 2460
 TATCTGTTG AATGAGTTTC CAOTAGCGCT TGATAGCCTT GTATTCCGGA TTTTCGATGA 2520
 AACTGATTCA TGATTTGGAC ACGCACAGA CTCATAGCAC 2580

(2) INFORMATION FOR SEQ ID NO: 115:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11503 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TATTGGATTT CCCTTGCAAT CAGTTTATGG GACAAGCACC CGGCAGCGCA GAGGAAATCA 60
 ACGCCCTCTG TAGCTACAT TTTCAACCA CCTTCCACG TTTTGCCAAG ATTAAGGTCA 120
 ACGGTAAGGA AGCAGACCCCT CTCTATGTCT GGTTACAAGA CCGAAGATCC GGCCCACTAG 180
 GAAJACGAGT CGAATGGAAT TTCCGTAAGT TTCTCATCGG TCGAGATGCG CAAGTCTTTG 240
 AACGCTTTTC TTCAAAAACA GACCCAAAAC AAATTTGAAGA GCGGATACAA ACTCTACTAT 300
 AATTACAAT CTCATATGA TTAGGTTTCC TTTAACCTGA TGAATAGTGA GATTTTTTGA 360
 TGGGCTTTGA CTTAAATAGA AAAACACCCC ATGATATGAA ACATGAAGTG TTGTAAAGTC 420
 TATGTTGTAG GTGCTTATTT CACAATTTCA ATGTGACCAG TGATAACGAA TACCATACAG 480

AATCTTCATA TACACTAAAC AAATGACTTT CTAATTATTT CAATTAGTTT TGGCTAGTAA	540
ATATCATTTTC CAACAACGCG CCTCTCAATT CCTTATCCTG ATGATGCAAG ATATTCAATTA	600
AGTCATGAGA GTTTTTCGCA TTGATGAATT GATTTAACAA TCTATCTTTT AATTTCATATG	660
GAAGAGAAGC TGTCTTTAGT AGTCTAAAAA CTTCGTTCATT TAAAGATGTC CTYTTTATAT	720
CTTTCGATTC AAATTAGCT GTATCAATCT TATTGGCAA TTCAATTATA GACACATTCG	780
TTCTTTTAAA ATGAATCTTA TGTTTCTAT TGCTTGGAAC GATACTAGAA TCTCTCTGTA	840
ATGCTAACTC TACCAATCCC ATTTCCCAAT CGATTGATAA TCTTGTTTAA TATCTTTGAC	900
CATTTTGTATC TTCAAGCATT TCAAAAGAAT GTTGTTTTCC TGGGAATACA TACCAATCTA	960
CAACTTCAGG TAAATCAACA CCCATACCTA TCTCAGAAC AACCAAGGGA ATGATTCGAC	1020
CACTTTTTGC AAACACAGGC GTAGTCGAGA TGTCCTATA AACACTTAAC TTCACACCAC	1080
CTGTGTATTT TTTCTCTGAA AAGAAGTCAT ACCATTCAAC TTCAGGGAAC CATACATCTA	1140
CTTTTGCAGA TTGGAATGTC AAATCCATCT TTTCTACAAT GGGAGCCACC ATCAGTTCTG	1200
TTCCAAAAAA GTATTGGTTT GGAACATTAT AGCTCTCATC ATTCTCTGGA TAGAAAAAAT	1260
AGATTGGACT GATTAAATGGG GCACCTTCCT CATGPGCTG TACATTCAAT GTATATAGAT	1320
AGGGAATCAT CTGATGTCTC AAACGAAGGT ATTTCTTCAT AATCTTAGAT GTTGTTTCTG	1380
AAAAAAACCA AGGTTCTTTA CTATTAAAG GACTTCTAGA ACTATGTAAT CGAGTAATCG	1440
GACTAAAAAC ACCAAACTGT AGCCATCTAG TTTGTAGTCT TTGCTCATAA TCCCCAACAA	1500
TATGTCCACC GATATCATGA CTCCACCAAC TATAACCGAT ATTAGATGCT GTGCTGTGTA	1560
AATAGGGTTG AAATCTTAAG GAATTCCAAC TAATAATAGT ATCCCCTGAA AAACCAACAG	1620
GGTAGCGGTG ACTACCAGGA CTGCGATATC TTGATAAAAT CAACCAACCT CTGCAATTTT	1680
TACAACATAT CTGATAGTGA TAATGGTTTA AAAGCCAAAG TGGATCTAGC ATACCTTGTG	1740
TCCCTGTGTG CCAGTCAATC CACCAAAAAA CTACTCCCTG CTTTCTAGT TCATATGAA	1800
CATCTTTTAA GTAGGCTTCC CTAAAAAGAG GATTAAAAAA ATCAAAAAATA GCAGGTCTCT	1860
CTAGTCTTAC ATTTAACCCC AACCCTTTTG CGATTGTAGG ATAAGCTTCT TCATAAGCCC	1920
GTATCCCATC AGCAGGATGG ACATTTAAGG AGAGTTTTAG CTTTCTATCA TGAAGTTGTT	1980
GCAATAAGTC TTCTGGATTT GGTATTAAGT TTCTATTCCA ACTATATCCT GTCCAGCCAC	2040
TTCCAAAGCG AGCTGGAAATG TCAAGTATAT GCCAATCCAT ATCTAACACA CCGATAGATA	2100
ATGGAATTTT CTCGTGTTCA AATCTGTCTA TTAATCCAA GTATTCATCC GACGTATAG	2160
GCCAATATCT ACTCCACAA TTGCTTAAAG CATATCTTGG CAACAAGGGT GTTGAACCAG	2220
TCAATGTGTA AAAATCTCTG ATGCTCTCTC TATAATCATG CCCATAGGCA AAGAAATACA	2280

GGTCAATTG ATTTCTCTC TCAATATAAC CAGATTGPTC ATCCCAAATA AATCCTTGAG	2340
AATCATCCAA TAAGGCTATA CCAATTCGGC TAATAATTCC ATCTTCTAAC GAGATTGCTC	2400
CATCTGCGTT ATCCAGAGTC CGAGCTGTTC CTTTAAACGT TTCAATAGAT TCACCAAAAT	2460
ACCAGCGACT ACCATATAGC GCAAAATTC CTTTAAATC TATAAATAA TTTTCGGCGT	2520
TAAATCTCTC TTTATTAAG TGCAGATGAA AATAGTCCGT CATTAATCT AGTACGTTG	2580
ATGTCCTGAT ATAATCTAAC GAAATTTGGC CAAAATCTCT ATATAGATA AGTTGIGTGC	2640
TTCTATCCTC AAAACTTCCA GTTTGAGAGT ATTCTAACCT TACTAGCTTG TCTGTTAATA	2700
CAGAGATTGC ATAAACTCTC CCTTAAAAA TTTTCAATT GTTTTCCTCC TTTTATGTA	2760
GCATAAAAC AGAACGCACC ATTTTGTATG CGTTTTCAT TATTCTGAAT GCAATGTCT	2820
ATCTGTATTA TCTATGACAA ATAAATAGTCA ATTGAAAAA TGCACTGGAC AAAATATCTT	2880
TTAACAAAC AAGAGTTTAT TAAAGAGTTA TCACCTTTCA ACTTTCTAA GCTTATGAG	2940
TTGTGAACA AACTACTTTT AAACATATAA CTAAGATAGG ATTGATAAAT AATTTCAAAC	3000
TCTTACTAGC AATCATACGA TATTCAAGCT CACGTGCTT TTTCTTCTCT GCTTATTTCT	3060
TAGAACTGAA GAACCCGAT CGGTATATAA ATTATCCGGA TCAACATAGT CATAAGATT	3120
ATAACAGTTG CGCTTCAATTA AGTCATCCCC AGAGCAAGAG CTTCATCTCG TAATTTTCA	3180
ACATCACATA CCGTAGGTGC CCAATCTTCA ATCATATTG TACTTAAAGC ATACCAACA	3240
CTCTTAAAA CGGATCGGTT TTCAAAAGCT ATGCCATGA TTGTCATCTT TTCTTTATCT	3300
ATATCTAAG ACATATGCTA CCTCCTTTAG ATACATATA CCATGTTTCT CTGTAGCTTT	3360
TAAAAATTTT ATTTTGTGTC TCATATCTAA GTTTTCAGCA CGCTTATCCT ATTTTATAAG	3420
CCTCAAAACC AAATATAAAA CGCATCTCTT TTGCTTTTTT ACTATGTAT CGTATCTAC	3480
GATAACATAC TTTACTTTAT TGTTTTTTTA AATAACAGCA GTTCCCTGTT TATCAACTAT	3540
TCGAACACT TCTATTTTG CTTCATACCC TACATAGCGA AAAAAATGA AAAAGCAGAG	3600
AAGAATATCT TAAAAAGAC TCTTCACTGC TAATATTAC ACTCATTATT TAAACTATAT	3660
GGATTCTATC ATCGAGTATA CTTTTTACT TATTAGATAC CTGTGCTTTC TTTCACCAAT	3720
TTTTGATCAT ATACAGGAT GAATGGAAGA TAGACTAGGA ATGCTGCAA TGCACATACT	3780
AGAGCAACTA ATACAGCTCG AAGATCTGCT GTCCCTAAGA AAGCTCCAAT CCTTACTGGA	3840
GTGCGCATG GAACCTGTGC GATAATTGGC TTAATAAAGT TTAGAGAATT CGTACGTAA	3900
TAAATAGTAG CAGTAACCAT TGTGCTTAAA ATAAATGGTA TAGCCAAGGC TGGATTATAG	3960
ATAATAGGTA ATCCAAAAAT TAATGGTTCA TTAATATTAA ATAAGGCTGG AACTACAGAT	4020

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GCTCGTCTTA TTGCTTTAAG CTGTTTCAGAT TTAGAGGCAA AAGCAATATA TAAACATAGT	4080
CCTAAAGTTG CACCAGAACC ACCTGCAATT ACAACATAT TAGAAAAATC ACCTGCAACA	4140
GCGAAGTGCC CGCCAGCAGC ATTTTCAGCC ATGTTAGCAA GAGCAATTGG ACTAACAAAT	4200
GCAAAAACAA TGTTCGCACC GTGGATACCT ACAATCCAAA GTAGTTGAGT CAATAGATAA	4260
ATAATCATTA AACCAATCCA CGAATTAGTC AGATTGGATA CAAACCAAAA TGGAAATTGCA	4320
ATGACTTTAA AATATCTGT TCCCATTGCT ACAAGAAGAC CGTTGATAAA GATAACAAACA	4380
AATGCAACAA CAAATCCCGG AACCAAGCG GTAATCCAC GAGAACTCC TTCTGGAAACA	4440
GCTTCAGGCA TTTTAATAAC CCAATTATGT TTAACACACA TACGATAAAT AAGAACAGTC	4500
ACAATTGCCA TAATGATTGC GGTAAAAATC CCTGTTGTCC CAAAACGTGC GACTACATTT	4560
CCCATTTGCC ATCCATCTGC AATTACTGCA CCTTCTTTTA GACTTGTAC AGTCTTCATC	4620
ATTCCACCAT CAAAAATGAT TTGCGGTACT GTCATGACAA AAGCCATCAA GCGAAGCAAG	4680
GCACCATTTA GAGGATTCAT ATTGAGTTCT TCTTCCTCTG CATAAATTTT TGTCATTTA	4740
TATGCAAGTG ATAGAACGAA ATAAAGAGAT AGAGAAACCA TAGTCGCATA GTTTGCAACC	4800
ATGTAAAGTG ATGTGAATTT ATCAAAATGAA GCGAGAGAAA TATCTGCCAC AATTGGCCAA	4860
AATGAGAAAG CTTGTGGCAA AATACTGANT ACCAAAAACA TTGATCCTAC AATAGTAAT	4920
GGTACAGCAG CCATACCTGC AGCCGTGATA GCACGTACTA CTTTAAACTG AGCAAGTTTG	4980
CCCATTTGTC CCATAACATG GTTTTCAAGA AAACCAACAA ACCCGTTTGT TTGATCCATA	5040
AATGACCTC CTTAATAAAA CATAAATATT TTTACTTTCT AAAGACTAGT TTCAATACAA	5100
AATTATACTA GATCAGGATT ATAAACTAAG TGAGTTCTTT TCCAATTGGA CAAATTGTTG	5160
ATAAGCCTTA TCTGTTCTGT TATAAATTTT TTTAATCTTT CTAATGTCTA ACAAACTCAG	5220
AACTAAACCT AATAGAAGAA CTACAAAAAC AATAAACGCT GCTACTTGGT TATTTTCAAA	5280
AATCGGAAAA AGATTCTTAA ACCAACTTGT CCAAGTTAAA ACAAGTAAT CTATTGAAAT	5340
AAGCATTGTG ATTCTAACAA ACATAGTGT TATTCCCAAC TTTCTTTTCC TATTTCATA	5400
AGTTTAAAT TGTTCACAG TTGCTAAAAAT AGAAAAATCT ATGAGCATAA TGGGGAAAAAT	5460
ATAAATAGGC GAGGCACTAA TAACTGACT CAAGAGCCAA TAAATTTTCC CAJAAJAGAA	5520
GAGTGTATTT GAATAACGTA GAAGAAGATA TCGATTGAAA AAAGTATTAG TTAGAGCCAT	5580
CTCTGACGTF TGTGTTTCAA TCTTTTGTGC TTCTTTTTTA TCCATATCAT TTCTCTCTTA	5640
TATAACAACA CATATTTTAGT TAACTTTCTT ATAAAGAGCT AACATTTTCT TTGCTACTTC	5700
TAATAATGTC ATAGTGTGCA TTAATGATC TTGAGCATGT ACCATGATAA TTTCAATTTT	5760
AATTTCCACT CCACTTGCGT ATTTCTTGCAA GAGTTTGGTT TGTGCATGAT GCGCTTCAAG	5820

AATTATCTCA	TTTGATTGAT	TTAATTACT	TTCTGCATCA	TCAAAACCTAC	CTTCTCTCAT	5880
TTTTCGCAAT	GCTTCATGTA	TTTCTGACCT	TGCATTTCCC	GAATGCAGGA	TAATTTCAA	5940
TGTCGCAACC	TGCAGTTCTT	CTTGATTTCAT	ATAAACCTCC	TATTTTATCT	TCTCAATAT	6000
GTTAATAAAA	TCTTCAAAGT	TATTCGAAGA	TATTAAGCTGA	TTTTGCAATT	CATCATCTC	6060
TGTCAGAGAG	ACTATCTTTT	TAGTCACAGT	TGCCAAACCT	TGTTTCCCAT	ATATTGATGG	6120
AGATAGAAGA	AATACTAGCT	GGACATGTGA	ACTTTGATTA	TCCCAGAGTA	ACGAATCTTT	6180
ACAAATTGCA	ACCGAAACCT	TTCCCTCTGT	ACCAAAGGCG	TGAATAGGAT	GCGGAACCTG	6240
AATTTTTTCA	GAATAACAA	CTGAACCTAA	TTCTTCGCGC	TGTTTAAATC	CATAAAGTAA	6300
AGATTGTGTA	AACCTATTGT	ATTCACCAAC	AGATAAATCT	TCAACCATCT	TTTCAAGTAA	6360
ATTTACCTTG	TCTGATTGAG	TACATATTA	AAAGTTTTCT	TACTTAAAT	ACTGCTTAA	6420
GCCGTGTGTT	TCAAATTTGT	TAATCTTTGA	TGATTGTACA	TAACTAGAAA	CTTGCATCTA	6480
ATCCATAGCT	TTTCTAATCA	TTTCAATCTC	ATCACTCTTA	AGAAACACAC	TAACTTTAAA	6540
AACCTGGATT	TGAAATATA	GATTTGATA	ATCAATAGCT	GACACTATA	AATCTATTCC	6600
TTTAAGTTTT	TCTTGATCA	ATTCATAGTA	GCTTATTA	TCAACAACTT	CTACTCGGTT	6660
CCCAACCTCC	GTTTCCAAAC	GATTTCTTAA	CATTTGGGCT	GCACCAACT	CTGTTGCACA	6720
AATAGCAAGA	ATATTAAACT	TAGTACTCTC	TTTGTCTACCT	TCCATAGCAG	CTAAATAAGTG	6780
AAGACTTACA	TATGCTACTT	CATCATCTGA	TATTTGTCAC	TCCAAGAAT	TGTCATATTT	6840
TGCAAGAATT	TCTCTAGTCA	TAAAGAATAT	ATCACTATTA	TTCTGTTTAA	TTTCATCTAC	6900
CAAAAGGTTA	TTTAAGGTAA	TCCGCTTTTC	TAAACOTACT	TGTAGTGCTA	TTAGATGAGT	6960
TATCAATCCT	TCAATTAGTT	GGAAATCTGA	AGAAAAAGTA	TACATATCAT	CTAATCTTAA	7020
ATTTCTGAAAT	GTTTTAAATA	AAGATTTTTT	TAAACCTTCT	TCAGAAATAT	TCTTCTGATT	7080
TTTCTGACAT	TGTTGACTCT	TAGCTAACAA	ATGCAAAAGTA	ATGTAGTCTA	TTTCTGGAAC	7140
TGGAATTTCC	TGATTTGTTA	CTTCTCTTAC	TTTGAAGAAG	ATTTCTTTGG	CAACCTTTCT	7200
CTCTATTGCA	TCAATCAGTCA	TCTGACAGTC	TATATTTTTT	ATTTCAAATC	CGGATTTTAA	7260
ACGAATCACA	GACAAATGCTA	TGTGAACCTAC	TAAATTCGT	AGTACAAAAT	CAGATAGTTT	7320
TAGGTGTGCC	TCTTGGCAAT	CATCCAAAAC	AAATCTAGCA	AAATCTTCTA	ATGGAACAGT	7380
TTGATCAAAA	AAGTTAAATT	TTACATAGCA	ATGTATGTTT	TTAAAAAAT	GATTTCTTAG	7440
GAATATAATTT	ATGATAAAAC	GTCTTTTATC	ACGTTCTCTG	CCTGAGACAT	AAATCTCTTT	7500
ATTCGCCCTA	CTCTCAATGG	ACAAATTTATA	CTCTGATAAC	ATCACTCTGA	TCTTTCTGAA	7560

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ATCATGAGAT AATGTTGAAC GACTAACGTA AAGTTTCATCA GCTAAATCAT CAAAAAGAAC	7620
TGGAACCTGC TCAAAATAA ATTTATTTAA GATAAATACT AAACGATCAT CACCTTTTGA	7680
AACCGCAGTT TCGTATAGT CTCTCTCCAG TTCAATAAGTT TGCTAAACT CCTGTAAAGC	7740
GCCCTGATTC TCAAAAAATA TTTGATACCC TTGACCTTGT TTTGAAATCA ACCGACTCC	7800
TTGAATAATC ATTGCTCTCT CAATTAATTT CAGTACATTA CGGACAGTTC TATCTGAACA	7860
GGATAAATAT CTGCGCAGTT CTTTGCTTGT AACAAAACGT TCCTTATTTT TTATTAATAA	7920
TTGAAGGATA TCTTTCTCTT TAATGTTTAA CACATTCATT CCCCTCTAAA ACGTATGTTT	7980
TCATATATTG AACATATTA TACACTTAAA TCAGTTTATA TCAAACTCAA AACAAATTAT	8040
CTTAACCTAA ATATTATTG ACATTTTCATG TGTTCATCAA ATATCTCAA GAATCAAATT	8100
AGCCATTTTT TCAATTCCCA TTGGAATAGG AATATAGGCT TGAAGAGGTA TTTGTACAA	8160
TGGTTTTCCT GCTTTAGAAC CAGCCTCTTC AAATTGCTTA AAGTACATTT TTGTTTGAGG	8220
ACTGACAGTA TACAAATCAA AAGCTGCTGC TCGCATAGCT TCCCTCTCTT CAGTAGCAT	8280
AATAGCATCA ACTACAATAT CTTTCCCTTT TCCCTTTTGA AACTCTGTG TTTCTGTGC	8340
CATAAGTGAT GAAGACATTC CTGCTGCACA AATAATTAAG GCTTTTGCCA TAATATTTTC	8400
TCCTTTTCTT AAATCCAATC AAGCTGTGC TAACTTGCTT TATTTGTTAT CTATTTTTAT	8460
TATAAATAA AGCGTTTCCA ATGACAATTC CCTCATTTTC CTAAATGATA TGGAAAAA	8520
TTATTTATAC TTCAATTTAT AAAATAAAAT TATCTCTGAG AGTAGAAATG AAACACTATT	8580
TGCTAAATC AAAGGCAAGT CTCTATACG AATACCATGA GCAAGCCACA ATGCAATACC	8640
AATAACTTGC ATAACATACA TACCTAGAGC AATAGATCCT GTGCTCTTG TCTTAACATA	8700
ACGAAAAACT TGTGTAATAA ATGCAAAATG TGTAAAAAT GCTGCAATAC TTCCAATCAT	8760
ATGTCACCTC AATATGCTAA ACAAACTGAG AATAATCTCA GTTTGTTTAT ACTATCTAC	8820
TGATTACCGG TTAGATGAAA TAACCTTCTT ATACCAGCCA AAAGATTTT TCGGGGAAAG	8880
ATTATAACTT CCCTTCCCAT TATCATCTTT ATCTACATAA ATAAAGCCAT AACGTTTCCG	8940
CATTTACCGG GTACACGCTG AAACCAAATC AATACATCCC CATGGAGTAT AACCCATPAA	9000
ATCAACACCA TCTTCAACTA CAGCCTTTTT CATTTCAAGA ATATGGGCAC CTAGATATTG	9060
AATTCATATA TCAATATGTA CCATACCATC TGCTGCAACT TGATCTATAG CTCCAAAACC	9120
ATTTTCAACA ATAAAGAGTG GTAAGTGATA GTGCTCTGTA AACCAATTTA ACCGATAAGC	9180
CAAACCTTCT GGATCAATTT GCCACTCCCA TTCAGAAGCC TTAACMTAAT TATTTTTTAC	9240
TAAATCTTCT GTTTCAAGAT AATCAAAATA AGGATTAATTT TCAGATGAG AGTCGATAGC	9300
AAAGGACATA TAGTAACCTGA AACCAAATGTA ATCTACAGTC CCACCAAGTA AATCTTCTTT	9360

ATCCTGGGCA	GTAAATCAAA	CTGAATACC	TTTTCGTGCC	CAATACITGA	AAATATGCTC	9420
AGGATATTTA	CCFAAAACAT	GCACATCAGC	AAAATATATA	CGCTTCTCCA	TAGCTTTTCA	9480
TGCCATTAA	ATATCCTTAG	GATTGCAAGT	AACTGGATAA	ATTGGACACA	TGCGAATCAT	9540
ACAACCTATT	TCAAAATCTG	GATTAACTCT	ATGACCAATT	TTTACAGCTC	GTGCAGAAGC	9600
AACATAATCG	TAATGTGCTG	CTTGATACAT	AATGTCTTCT	CTATTATCAC	CTTCTCATATA	9660
TACATAACCT	GAGTTAGTAA	ATGGTGCAAA	ATCITCCTGA	TAAATTCGTT	GATTATTGAT	9720
TTCAATTGAAA	GTCAATCCAT	ATTTAACTTC	ATCTTTGTAA	CGTTTAAATA	CGATCTCTGC	9780
AAAACGAGCA	AAGAAATCAA	TCAATTTCTT	ATTTTCCCAA	CCACCATATT	CGGTCACTAA	9840
GTGATAAGGC	ATTTCAAAAT	GAGATAGAGT	GATGACAGGT	TCAATACCAT	TCTTTAAGCA	9900
TTCAATCAAAA	AGATTATCAT	AAAACCTGTA	TCCTTCTTCA	TTGGGCTCTA	ACTCATCACC	9960
TTTTGGGAA	ATACGTGTCC	ATGCAATAGA	GGTACGGAAG	CACCTGAATC	CCATTTTCAGC	10020
AAAJJGTGCT	ATATCTTCTT	TATAACGGTG	ATAAAAATCT	ATCGCCTCAT	GATTTGGATA	10080
ATATTTACCC	ICTAAAACTC	CCAAAGTAAT	TTCAAGAGCT	ACTCCATGAC	GACCAGCAGT	10140
CATAACATCA	GCACACATTA	TTCCCTTGCC	ACCTTCTTGC	CATCCACCTT	CAAGTTGATG	10200
AGCAGCAACA	GCACCAACCC	ATAAAAATCC	ATCTTTAAAA	GTAGTCATCT	TTTTTCTCTC	10260
TGACTTTGAT	ACTCTTATTA	TAAACCTTAA	ACCAAAAGAT	GAAAACGCAT	TCTTTTCTCT	10320
TATTGTTAAG	GAAAGAAATA	ATTTTAAATG	GAAATAGAAC	AATATCTTCT	TGTATTCTCG	10380
TAATGATATC	TTTACGATTT	TCAATACTTT	CAAACTACAA	AACTCTCAC	AATAATTCTA	10440
ATTCCCTGTG	TCTATAAAGC	ACTTATCGCT	TTCTGGGATC	CCAGATCAT	CTTCTATATA	10500
ACGTCAACT	TGCATCTGCA	AGTGATATTT	TTTTCTTAAA	TCTAAGATT	TCTGCATTGT	10560
CTTTGATTGA	TAAATGTTAT	CTAAAGTTTC	TTGATTTATC	CACGTATCAA	TAAGGAGAAT	10620
AGTTCCCTCT	TTTTCAATTG	GTAAAAAATA	TTGATTTTTC	AAGTTACCTT	TTTGAATTTCT	10680
AATTTCTTTA	ACAAGGCCAC	TATCAAGCAT	TTCTCTTGCA	AACTTTATTG	CACATATCTC	10740
ATCACCTTTA	TAATATACAT	GAATAGTCAA	TGTCATCTTA	TATCCTCCAA	AATCATCTCT	10800
CAATTTTAAA	AAAACAAGTT	TAGATGAGGA	TCTAAACTTG	TTTTTTATGA	ACTAAATTATC	10860
TAAAGTTTGC	CCATTACTTT	CAATCACTTC	TTTATACCAA	TAAAATGATT	TTTTCTTATA	10920
GCATTTTATA	GTCAATTGAA	ACAAGAGCAG	GACAAAAGAG	CCTCATAAAA	GGTATTGCAA	10980
CTTGGTAATA	CCTTTTGTAG	GTGCTTTTTG	ATATGAGCCC	ATGTTTCTTC	AATGAGATTG	11040
TACTCAGGTG	AGTAGGGAGG	AAGAGTAA	AGTTTATACC	CAAACTCTTC	ACACAGACT	11100

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TCTAGCTTCC	CCATTCTATG	GAATCTTGCA	TTATCCATAA	TAATAACCGA	TGGTGTGGTT	11160
AATGTGGTA	AGAGAACTT	CTGAAACCAA	GCTTCAAAA	AGTCGCTCGT	CATCGTCTCT	11220
TGTAAGTCA	TTGGAGCGAT	TAACTCACCA	TTTGTTAGAC	CTGCAACCAA	AGAAATCCTC	11280
TGATATCTTC	TTCCAGATAC	TTT				11303

(2) INFORMATION FOR SEQ ID NO: 116:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3112 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

CCTTAGATT	CCACTTGCCA	GAGGAATTGA	TTGCCAAAC	GCCCCTTGAA	AAACGTGATG	60
CCTCCAACT	CCTCATCGTC	AACCGTGAGA	CAGGAGAAAT	GCAAGATAAA	CATTTCACAT	120
CTATTATTGA	TATGCTGGAA	CCTGGTGATG	CCCTTGTCAT	GAACGACACC	CGAGTTCTCC	180
CTGCCCGCT	CTATGGTCAA	AAAGTGGAGA	CAGGAGGTCA	TGTGGAACCT	CTCCTCTTCA	240
AGAACACTAG	TGGAGACGAG	TGGGAAGTTC	TGGCTAAACC	TGCCAAACGC	CTCAAGGTGG	300
GTAATCGTAT	CAGCTTTGGT	GATGGCCGCC	TCAGCGCTGT	CGTTACAGAA	GAATTGACCC	360
ACGGGGGACG	CA'TTGTCCGC	TTTGAATACC	AAGGAATTTT	CCTAGAAGTC	TTGGAAAGTC	420
TGGGAGAAAT	GCCTCTGCCA	CCTTATATCC	ACGMAAAATT	AGATGACCGT	GAACGTTATC	480
AAACCGTCTA	CGCCAAGGAA	AGTGGCTCTG	CTGCAGCACC	GACTGCTGGT	CTTCACCTCA	540
CCAAAGAACT	GCTGGCAGAA	ATCCAAGCTA	AGGCTGTTC	TCTAGTCTAT	CTGACTCTCC	600
ATGTCGGAGT	CGGAACCTTT	AGACCTGTTT	CTGTGGATAA	TCTGGACGAA	CACGAAATGC	660
ACTCAGAGTT	CTATCAACTT	TCTGAGGAAG	CTGCTGCCAC	CCTTCGCTCT	GTCAAAAAAA	720
ATGOTGGTCG	TGTCATCGCT	GTCGGAACCA	CTTCTATCCG	CACCTTGGAA	ACTATTGGTT	780
CCAAGTTTGA	TGGGCAAAATC	CAAGCAGATT	CTGTTTGGAC	CAATATCTTT	ATCAAACTCG	840
GGTATGAGTG	GAAGGTCGTG	GATGCCCTCT	CAACCAACTT	CCACCTGGCA	AAATCAACTC	900
TGTCATGTT	GTTTCTGCCT	TTTGACGCC	GTGAATTAGT	CTTAGATGCC	TACCACCAT	960
CCATCCAAGA	ACACTACCGC	TTCTTCAGTT	TTGGTGACGC	CATGTTTATT	TATTGAGAAA	1020
GAATTTCTCT	AAATCTTCTA	ATACCAATAA	ATCGCTAAGA	TATTATTCTA	AAGAACATCT	1080
ACAATTGAAA	CTCTAGCTAG	CTGTAGAAGA	GGCCTAGTAC	ATTGAAATTA	AAATGCTTCC	1140
CCCTAGCTTC	GAAAAATATTG	CCATAGATTG	CGTTGACTCT	CCAAATTGAT	TCATCTATAT	1200

TTTATPTCAG	CTTCTATAC	TTTCTCTGCT	GTTCGTAAAT	CAAAATGCAA	GACACATGAG	1250
TAGCACCATTA	TTTGTTACTC	TTATCTGTCC	TCTCAAGAGA	CTATTATGAG	TTATTTCAAG	1320
ATCATTCACT	ACTTTGACCC	TGACTCTCCT	TAGTCTCAAA	ATCAAAGACT	TATATCTTTC	1380
AAAAATCTCT	TCAAACCGCG	TCAACGTCAC	CTTGGATTAT	ATATGTGatC	TGaCTTCTGC	1440
AGTTCTATCT	ACAACCTCAA	AGCAGTACTT	TGAGCAACCT	CGGACTAGTT	TTCTAGTTTG	1500
CTCTTTGATT	TTCAITGAGT	ATTAACAAAA	AAGTGAACAA	ATCTGAATTC	TAATGTACAG	1560
AAGACTAGCC	TTGTTCACTT	TTTTATAGTC	GCTATAAGAT	GACCTTATCT	ATAGCTTTTT	1620
ATATATAATT	ATATATTGAG	ACATACTATT	ATCAATTTTG	TGCGAGGAG	GAATCTGTTA	1680
ACGACCCCAT	TCACCATTTT	CATTGACTCT	ATAGCCATCT	ATACTGTAT	TGACCGCTAA	1740
CTCACCCGAT	GTATTACAT	AATACCATTT	ACCACCACT	TGGAACCAT	GATTGACTTT	1800
CATAGAACCG	TTGCTGTGGA	GCTAGTACCA	TGAACATTA	ACTTGTACCC	AACCTGTTGC	1860
CATGGAACCA	TCAGTATTAT	AAAAATACCA	CATACCATTT	TCTTGTTC	AGTCTGTGT	1920
TGAGCAACT	GCTTTAGCTG	GTTCTACTGC	TACATCTGTT	CCTTGGTTAG	ATGTAAACAGA	1980
TACAGGATAC	GAAGGAATAG	ATGATTGCTC	AGGAACAACA	ACTTTTTTTC	GTTCTCTCGT	2040
CCCTCTCCTT	ATACGTCCTT	TACCATCTC	TTTAGTAATT	TGACGAGAAG	TAGTTTCTTC	2100
AATTGTTC	TCACGTCAT	CTACAGTATA	GATTGTAGTA	AGAGTAATTT	ACCAATTTCT	2160
CCTACTTCTT	CTACTTCTTG	ACTTTTATCA	AGAGTTGGGC	CATCGAGATA	TTCTGTTTTC	2220
ATTGGAATTT	CTTGGACAAG	AACTTGGGGC	TTGGTTCTTT	TTTTAACAC	TCTTGTGTTGA	2280
GAGTCTTTTT	TTTGACTTAA	AGTACTCTCA	GTTACTTGTG	CACCTTTTCC	ATCTACATTA	2340
TAAGTTATCG	TTGTAACCTGT	TTTCCCATTC	TTTCTAGAG	TAATCTCTTG	CTCCTGTCTCT	2400
GCAGAAAGGT	CATTGTCTGC	TTCAATTTTA	GTAGCAAAAT	GAACAGAAC	TTCTTCAACC	2460
TTGCTTTTAG	CTGGAACCTT	GATAACTGTA	TCCGTGGCTT	CTTTTCTATC	AACAGTAACC	2520
TGTTCTGTAA	CATTAACAGT	CTCTGGATTA	ACATCGTAGG	TCCTTGTCTC	AGTTACATAG	2580
CCATCCTCTC	CATCAATTGT	AACAGGATTT	TCACTACGGT	CTTTTGTTC	ATCTTTTCA	2640
TACGAATTC	CGCTACTTGA	AATTTTCTTG	GTTACTACCT	TAGGTTTAGT	CGCTACTTTT	2700
ACAATAATAT	CCCATTTGTC	AGCGTCATCA	TACTCTATTC	CCTCTTCTTT	ATCTCTAGTA	2760
TCATCTCTGA	CATATTGAAT	CCCATCAGCA	GCAATGAACA	AACCTGTATT	CAGATTCTCT	2820
CTAAAAATAA	AGTTAGCCCC	ATTACCCGAG	AACCAAAAAA	CTTTCCGAGT	TTACGTATTG	2880
CATAGCGCTT	ATTAGTATTA	GATTTTGCCA	TTACATCCTA	CTTCTAGTAT	AGCATCTTTT	2940

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CTATCAAACG TTAACAATA TACGTTATAT ATAAATAGA CTAGAATGA TATATTGATT 3000
 ATTGAACATA CACTTTAACT ATATCGTAAT CAATCTCATA TATAAAGGAT TGCAGACATC 3060
 TTATCTAAAT ACATGCGAAT ATATTAGAT ACAACATTC CAACTTGATA AT 3112

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4327 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CCCAAAATC TCTCAAACC ACGTCAGCTT CGCCTGCCG TAGTATGGTT ACTGACTTCG 60
 TCAGTTCCTAT CCACAACCTC AAAACAGTGT TTTGAGCATC ATGCgGCTAG CTCTTATGTT 120
 TGTCTCTTTGA TTTTCATTGA GTATAAAAC AGATGAGTTT CTGTTTCTCT TTTATGGACT 180
 ATAAATCTTC AGCTGAAACT ACTTTCAGG ACATTATTAT ATAAAAGAA TTTTGAAC 240
 TAAATCTAC TATATTACAC TATATTGAAA GCGTTTAAA AATGAGGTAT AATAAATTTA 300
 CTAACGCTTA TAAAAAGTA TAGAATCTAT TTTTATGTAT ATTTAAAGAT AGATTGCTGT 360
 AAAAAAGTA GTAGCTATGC GAAATTAACG ATAGAGAGAA GGGATTGAAG CTTAGAAAAG 420
 GGGAAATAA TGATATTAA GGCATTCAAG ACAAAAAAGC AGAGAAAAAG ACAAGTTGAA 480
 CTACTTTTGA CAGTTTTTTT CGACAGTTT CTGATTGATT TATTCTTCA CTTATTGGG 540
 ATGTGCCCC TTAAGCTGGA TAAGATTCTG ATTGTGAGCT TGATATATTT TCCATTATT 600
 TCTACAAGTA TTTATGCTTA TGAAGAGCTA TTTGAAAAG TGTTCGATAA GGATTGAGCA 660
 GGAAGTATGG TGTAAATAGC ATAGGCTGAT GTCCATCATT TGCTTATAAA GAGATATTTT 720
 AGTTTAATTG CAGCGGTGTC CTGGTAGATA AACTAGATG GCAGGAGTCT GATTGGAGAA 780
 AGGAGAGGGG AAAATTGGCA CCAATTGAG ATAGTTTGT TTAGTTCATT TGTCAATTTA 840
 AATGAACGTG AGTAAAGAA AGTTAATAAA AGACAACATA AGTGCAATTT CTGGAGTAAA 900
 TGTCCTATTT CAGAAATCGG GATATAGATA TAGAGAGGAT CAGTATGAT CGGAGTGTTC 960
 AAGAACGTAA GTGTCTTAT AGCATTAGGA AACTATCGGT AGGAGCGGTT TCTATGATTG 1020
 TAGGAGCAGT GGTATTGGA ACGTCTCTG TTTTAGCTCA AGAAGGGGCA AGTGAGCAAC 1080
 CTCCTGGCAA TGAAACTCAA CTTTCGGGGG AGAGCTCAAC CCTAACTGAT ACAGAAAAGA 1140
 GCCAGCCTTC TTCAGAGACT GAACCTTCTG GCAATAAGCA AGAACAAGAA AGGAAAGATA 1200
 AGCAAGAGA AAAAATTCCA AGAGATTACT ATGCACGAGA TTTGAAAAAT GTCGAACAG 1260

TGATAGAAAA	AGAAGATGTT	GAAACCAATG	CTTCAATGG	TCAGAGAGTT	GAATTATCAA	1320
GTGAAC TAGA	TAAACTAAAG	AAACTTGAAA	ACGCCAAGT	TCACATGGAG	TTTAAGCCAG	1380
ATGCCAAGGC	CCCAGCATTC	TATAATCTCT	TTTCTGTGTC	AAGTGCTACT	AAAAAAGATG	1440
AGTACTCTCAC	TATGGCAGTT	TACAATAATA	CTGCTACTCT	AGAGGGGCGT	GSTCCGATG	1500
GGAAACAGTT	TTACAATAAT	TACAACGATG	CACCCTTAAA	AGTTAAACCA	GGTCAATGGA	1560
ATTCTGTGAC	TTTCACAGTT	GA AAAACCGA	CAGCAGAACT	ACCTAAAGGC	CGAGTGGCCG	1620
TCTAAGTAAA	CGGCGTATTA	TCTCGAACAA	GTCTGAGATC	TGGCAATTTT	ATTAAGATA	1680
TGCCAGATGT	AACGCATGTG	CAAACTCGAG	CAACCAAGCG	TGCCAACAAAT	ACGGTTTGGG	1740
GGTCAATCT	ACAGATTCGG	AATCTCACTG	TGTATAATCG	TGCTTTAACA	CCAGAAGAGG	1800
TACAAAAAGC	TAGTCAACTT	TTTAAACGCT	CAGATTTAGA	AAAAAACTA	CCTGAAGGAG	1860
CGGCTTTAAC	AGAGAAACG	GACATATTGG	AAAGCGGCGG	TAAACGTAAC	CCAAATAAAG	1920
ATGGAATCAA	GAGTTATCGT	ATTCCAGCAC	TTCTCAAGAC	AGATAAAGGA	ACTTTGATCG	1980
CAGGTGCAGA	TGAACGCCGT	CTCCATTGGA	GTGACTGGGG	TGATATCGGT	ATGCTCATCA	2040
GAGCTAGTGA	AGATAATGGT	AAAAC TTGGG	GTGACCGAGT	AACCAATTACC	AACTTACGTG	2100
ACAATCCAAA	AGCTTCTGAC	CCATCGATCG	GTTCAACAGT	GAATATCGAT	ATGGTGTGGG	2160
TTCAAGATCC	TGAAACCAA	CGAATCTTTT	CTATCTATGA	CATGTTCCCA	GAAGGGAAGG	2220
GAATCTTTGG	AATGTCTTCA	CAAAAAGAAG	AAGCCTACAA	AAAAATCGAT	GGAAAAACCT	2280
ATCAAACTCT	CTACCGTGAA	GGAGAAAAGG	GAGCTTATAC	CATTTCGAGAA	AATGGTACTG	2340
TCTATACACC	AGATGGTAAG	GCGACAGACT	ATCGCGTTGT	TGTAGATCCT	GTTAAACCCAG	2400
CCTATAGCGA	CAAGGCTGAT	CTATACAAGG	GTGACCAATT	ACTAGGAAAT	ATCTACTTCA	2460
CAACAAACAA	AACTTCTCCA	TTTAGAATTG	CCAAGGATAG	CTATCTATGG	ATGTCCTACA	2520
GTGATGACGA	CGGGAAGACA	TGGTCAGCTC	CTCAAGATAT	TACTCCGATG	GTCAAAGCCG	2580
ATTGGATGAA	ATTCTTGGGT	GTAGGTCCTG	GAACAGGAAT	TGTACTTCCG	AATGGGCCCTC	2640
ACAAGGAGCG	GATTTTGATA	CCGTTTATTA	CGACTAATAA	TGTATCTCAC	TTAGATGGCT	2700
CGCAATCTTC	TCGTGTCATC	TATTCAGATG	ATCATGGAAA	AACTTGCCAT	GCTGGAGAAJ	2760
CGGTCAACGA	TAAACGTCAG	GTAGACGGTC	AAAAGATCCA	CTCTTCTACG	ATGAACAATA	2820
GACGTGGCGA	AAATACAGAA	TCAACGGTGG	TACAACATAA	CAATGGAGAT	GTTAAACTCT	2880
TTATGCTGTG	TTTGACTGGA	GATCTTCAGG	TTGCTACMAJ	TAAAGACGGA	GGAGTGACTT	2940
GGGAGAAGGA	TATCAACGT	TATCCACAGG	TTAAAGATGT	CTATGTTCAA	ATGTCTGCTA	3000

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TCCATACGAT	GCAOGAAGGA	AAAGAATACA	TCATCCCTCAG	TAATGCAGGT	GGACCGAAAC	3060
GTGAAAATGG	GATGOTCCAC	TTGGCAGCTG	TCGAAGAAAA	TGCTGAGTTG	ACTTGGCTCA	3120
AACACAATCC	AATTCAAAA	GGAGAGTTTG	CCTATAATTC	GCTCCAAGAA	TTAGGAAATG	3180
GGGAGTATGG	CATCTTGTA	GAACATACTG	AAAAAGGACA	AAATGCCTAT	ACCCATCAT	3240
TTAGAAAATT	TAATTGGGAA	TTTGTGAGCA	AAAAATCTGAT	TTCTCCTACC	GAAGCGAACT	3300
AGAGAGATCG	GCAAAGGAGA	GATGGGCAAA	GGAGTTATTG	GCTTGGAGTT	CGACTCAGAA	3360
GTATTGGTCA	ACAAGGCTCC	AACCCCTCAA	TTGGCAATG	GTAACACAGC	GACTTTCTTA	3420
ACCCAGTATG	ATAGCAAGAC	CTTGTTCCTT	GCAGTAGATA	AGGAAGATAT	CGACAGGAA	3480
ATTATTGGTA	TAGCTAAAG	AAGCATCGAA	AGTATGCATA	ATCTTCCTGT	AAATCTAGCA	3540
GGTGCCAGAG	TTCTGGCGG	AGTAAATGGT	AGCAAAGCAG	CGGTGCATGA	AGTTCCAGAA	3600
TTTACAGGGG	GAGTTAATGG	TACAGAGCCA	GCTGTTTCATG	AAATGCAGAA	GTATAAGGGA	3660
TCTGATAATG	TTGTAACTCT	TACTACAAAA	AAAGATTATA	CTTACAAAGC	TCCTCTTGCT	3720
CAGCAGGCAC	TTCTGAAAC	AGGAAACAAG	GAGAGTGACC	TCCTAGCTTC	ACTAGGACTA	3780
ACAGCTTTCT	TCCTTGGTCT	GTTTACGCTA	GGGAAAAAGA	GAGAACAAATA	AGAGAAAGAT	3840
TCTAAACATT	TGATTTTGTA	AAAATGGCTC	TTTGTCAACT	GTAAGGGGTT	GAAGTCAGCT	3900
AAGCTCGAGA	AAGACAAAT	TTTGTCTTTT	CTTTTGTGAT	ATTTCAGAGCG	ATAAAAAATCC	3960
GTTTTTTGAA	GTTTTCAAAG	TTCCGAAAAAC	CAAAGGCATT	CGCTTTGATA	AGTTTGATGA	4020
GATTATTGGT	CGCTTCCAAT	TTGGCGTTAG	AATAGTCTAG	TTGAAGGGCG	TTGACGATTT	4080
TCTCTTTGTC	CTTTAGAAAG	GTTTTAAAGA	CAGTCTGAAA	AAGAGGATGA	ACCTGCTTTA	4140
GATTGCTCTC	AATGAGTCCG	AAAAAATTTCT	CCGGTTCCTT	ATTCGAAAG	TGAACAGCA	4200
AGAGTTGATA	GAGCTGATAG	TGATGTTTCA	AGTCTTGTA	ATAGCTCAAA	AGCTTGTTTA	4260
AAATCTCTTT	ATTGTTTAAA	TGCATACGAA	AAGTAGGCG	ATAAAAAATG	TTATCGCTGA	4320
GTTTACG						4327

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3521 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CTCTGGCCCT GCCACTCCAA CGTTTGTCA GGTGCTTTT TTCATAAAG AGTTCTTATG

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TTAGATATCA AACGATTCG TACAGATTTT GAAGCTGTGG CAGAAAAAT	AGCTACACGT	120
GGGTAGATG CTGCTGCTT GAATGAATG AAGGAAATCG ATGCTAAAG	TCGTAAACATC	180
TTGGTCAAG TTGAACTCT CAAAGCAGAA CGTAACACAG TTCTGTCTGA	GATGTCCTCA	240
GCTAAGGCA CAAAGGAAA TACAGATGAC AAGATGCTG CCAATGCAAA	TCTATCTCT	300
GAGGTAAAG CCTTGGATGC TGAATTGGCA GAAATCGATG CTAATTTGAC	AGAATTTACA	360
ACGACTCTTC CAAATATCCC AGCTGACAGC GTTCTCTTGG GGGCTGACGA	AGACGACAT	420
GTGGAAATTC GCCGTGGGG TACTCCACGC GAGTTTGAAT TCGAACCTAA	AGCTCACTGG	480
GATCTCGGTG AAGACCTTGG TATCCTTGAC TGGGAMCGG GTGGTAAGT	AACAGCGCT	540
CGCTTCTCT TCTATAAAG CCTCGGTGCT CGTTTGAAC GTGCTATCTA	CAACTTTATG	600
TTGGATGAAC ATGGAAGAAG AGGCTATACT GAAGTCATCA CACCTTACAT	AGTCAACCAT	660
GATTTCTATG TTGGTACTGG TCAGTATCCA AATTTAAGG AAGTACTTT	TGAATCAGC	720
GATACCAACT TTGTCTTGAT TCCAACTGCT GAAGTTCCTC TGACAACTA	CTACCGTGAT	780
GAAATCTTGG ACGGCAAGA TCTTCCAATC TACTTCACTG CCATGATCC	GTCAATCCGT	840
TCTGAGGCTG GTTCTGCCG TCGTGATACG CGTGGCTTGA TCCGTTTGA	CCAATTCAC	900
AAGTTTGAAA TGGTCAATG TGCCAAACCA GAAGAATCTT ACGAAGATT	GGAAAAATG	960
ACAGCCAAG CTGAAAAAT TCTTCAAAA CTCAACTTC CATACCGTGT	CGTTGCTCTC	1020
TCTACTGGAG ATATGGGCTT CTCAGCTGGG AAGACTTACG ACTTGAAGT	GTGGATTCCA	1080
GCACAAACA ATTACGGTGA AATCTCAAGC TGTTCAAACA CAGAAGATT	CCAAGCCGT	1140
CGTGCCCAA TCCGTACCG TGATGAAGCA GATGGCAAG TGAAACTCCT	TCAATCCTTG	1200
AACGGTTCTG GACTTGCAAT TGGACGTACA GTGGCTGCAA TTCTTGAAA	TTACCAAAAT	1260
GAAGATGTTT CTGTGACCAT CCCAGAAGCA CTTCGTCCAT ACATGGGTGG	AGCTGAAGTC	1320
ATCAAAACAT AAAAAATAG GTTTAGCTAT TTCTAGCTAG ACCTTTTTC	GTAACCAAT	1380
CAGATAGCA CCTAGTACAA AGAATAAAT AGTTAGGCAT ATAAATGTTT	CAGCAATAC	1440
CAGGTAATCC AGAAATGGAA GTTTCAAAAT TCCTTGAGCC ATCTTGAGCG	AGGTGCTGT	1500
GATATGTTT GGAAGGTGA GGCTGAGAA GGCTGGTTGA AAACCTTGT	TTAAATGTT	1560
GGGTGACGA GTTAAACAA AGAAAAAGAA GATTTGAGAA GCCAAATCA	TGACATCAA	1620
GACCAAGTC GGCAGGCTG TTCTCTCTAC TCGAAGTAGA GAAGCCAAGA	GTAGAGAGAA	1680
AGGAGCACAG TAGATTCCTT CTTGTCCAAG CAAGGCTAGT GGGATGGAT	GTCTCTTTAA	1740
ATCGCTTAA ATAAGGGGAT AGAGATAGAA GGTCAAGAGA AAACCAAAAC	TCAAGTCCG	1800

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ATAGGCAATT TCGATAATAC CTACCAGAGG ATAGGTCAAG GCAGCCACTG CTATCCCCAC	1860
ATAGAGAAAC GTCCAGCTTG GAGTGGCATG AACCTCCCG CCTGGACAAG CAAACTTGAT	1920
GGTAAACCA GCAATCAAGG TCAATCCAA GAGAAATGAA AACCAACAAA TCCCTTGTC	1980
TACCAAAAGG AGATANGAGA ATACCCGAAA GACATAGGTC GATAAAATCA TCCACGCCAT	2040
AGGAAAGGTT GCCATTCTG ACAAAAGAGG GGGCTTGCTC AATTCTTGCT TGCTTCTTT	2100
CCAATTAAAG AGATGCAGAA TTAGAAAGTA AATCCATAAA ACCAAACCAA TCAGACTAAA	2160
AAGATGGGAT AGAACCGCA ACCTATCTAA AATAAGATTT CCAGCTCCTG CCAAACTAG	2220
CAAAACCTT GAAATACTA AGGGGAGTTT TTTCATCCTA ACCTCCAAAT ATCATGTTAG	2280
TTTCAGTATA ACATAAAGC GCTTAAATGA GGATTAAAA AAACGAGTCC GCTTATTCA	2340
GACTTCATT TACTCAGATA TGAATTAGGC ATAAGGTTC AATTCTGAT TAATTGGTG	2400
ATTAGCTAAG TTGTTGGCAT AGTTACAGAG GATTGCTAGG CTGACACCAA AAACCACATC	2460
CAGGACGATT TGTTGAGTGT AGCCAGCTTC TAAAACTCA GACAAGGCTT CATCTCCTAC	2520
ACGACCTTG GTATTGATA CTGCCAAGGT AAACCTAGCT AGGGTATCCA ATTTAGGATC	2580
TGTTTCAATT GGAGTACGAT TCGGAAGAGC TTGAATCAAG TCATCATTCA TCTGGATTG	2640
TTTGATGGA AAGGCTGTGT GACCTGCGAC ACAGAAGGCA CAACCATGG TCACGGCTGC	2700
CGTGATTTC ACCACTTCAC GCTCAACGGG TGTCAAGCTG TTGCGACGCT GGATAGATGA	2760
GACAATTTGG TAGGCTTCTA AAACAGTCGG GGCATTGGCC AAGAGACCGA TTAGGTTGG	2820
AATATAGCCA TTGTTGCTTT TTTCTACTGT TTCAAGAAAT TCTTTCACTT CTGCTGGTGC	2880
TGACTCTACT GTATGGATAG TAAATGTTGT CATAAGATAC CTCTTTTCTT ATTAATTGAC	2940
CTAATATTAT TGGAAATCT TATAAAATCC TGATTCTCAA GTTTATCTAA GATAAAGCTT	3000
TATTTCTCTA TAAGATTTTC GTTGTTATAT TAGTTTATCA CACTTCCAAT CACTTGTATA	3060
ATATATATTA TATATCAGG TGATAAAAT TATTTATAGG CAAAAAATC ACACGAGCTG	3120
TGTGATCCA TTATTGTCA AATACTTTT TAGTTTCAGC AATAACGACT GGCGACAAGA	3180
CCAAGGGG AATCAAGTTT GGCAGAGCCA TCAAGGCGTT AACGATATCT GCGATAATCC	3240
AGACCATATC CAATCGATA AATCCTCCTA ACAAGCCAT GAGCACAATA ACCACACGGT	3300
AGAGCCAGAT AAAGCGAACC CCAAAGAGGA ACTCAAAACA CGTTCTCCG TAATAGTTCC	3360
AACTTAGAAT CTTGTAAG GCAAAAAGTA CAAGGAAGAT GGTCAAGAGA GCAGGCCCAA	3420
AGTGTAAGAA GTTTGTTGAG AAAGCTGACT GAGTCAAGGC AACCCATTC AAGTCACCGC	3480
TCCAACTCC AGTTACCAAG ATGGTCAAC CAGTTAGAGT A	3521

(2) INFORMATION FOR SEQ ID NO: 119:

845

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1968 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

AACCTGGGCA	AGCAAGCTAA	AAGCAATGGG	ACCTGGAAATC	CTAATGGCAA	CTGCCGCTGT	60
TGGAGGTTCC	CACATTGTAT	CCTCAACTCA	AGCTGGCGGT	TCTTACGGTT	GGTCTCTACT	120
TCTCTTGGTC	ATCTTAGCCA	ATGTCCTTAA	ATATCCATT	TTCCGTTTTG	GTGCTGAATA	180
CACAGCTGAT	ACTGGAAGA	CTTTGGTTGA	AGGTTATGCC	GAAAAAGGAA	AACCTCTATCT	240
CTGGATTTTC	TTTATCCTCA	ATGTCCTTTC	GGCTATGGTC	AACACGGCTG	GTGTTGCCAT	300
TCTGTGCTCA	GCTATCATCG	CCAGTGCCTT	CCCAATGATT	GGACTTAGCA	TTACTCAGTG	360
GTCCCTCAT	CTCGTTGCAA	TCATTGGGCG	TATGCTACTC	TTTGGAGGCT	ACAACTTTT	420
AGACGGCATG	GTCAAAATGA	TTATGCTCTG	CTTAACCAAT	GCGACTGTTT	TTGAGTTAT	480
CATTGCGGGG	GTCAAGCATC	CAGAATACAG	TTCTGATTTT	GTGAGAGAAG	CACCTTGGCA	540
AATGGCAGCT	CTGCCCTTCA	TGCTCTCCCT	CCTAGGATGG	ATGCCGCTC	CTATTGAAAT	600
TTCAAGCCATC	AATTCACTTT	GGTCAGCTGA	AAAGAGAAAG	ACCGTCAACT	TTAACAACAGA	660
AGACGCTCTG	TTTGACTTTA	ACACTGGTTA	TATTGGAAACA	GCTATCCTAG	CCGTCTCTCT	720
TGTGGCACTG	GGAGCACTGA	TTCAATATCC	TACAGGCGAG	GCGGTTGAAG	CTGCTTCAGC	780
CAATATCATC	TCTCAATTCG	TGGCATGTA	TGCCCTCTGT	CTTGGCGAAT	GGTCCCGTTA	840
CTTGATTACC	TTTATTGCTG	TCTCTGTAT	CTTTGGAACA	GTTATAACTG	TTATCGATGG	900
CTATTCTCGC	GTTAATCAGG	AATCTCTCCG	ACTGCTAATC	AGTCAAAAAG	AGGACAATCG	960
TAAATCTTTG	AACATCTGGA	TGACCATCAC	TGCTATCATC	GGTATCCTCA	TTATCAAGTT	1020
CTTCGCTGGT	CAGGTTTCAA	CCATGCTCCG	CTTTGCCATG	ATTGGCTCTT	TCCTGACAC	1080
ACCTTTCTTT	GCTCTTTTGA	ATTACGCTTT	GGTAAGCGGT	GAAAAACAAA	ATCTTCCTTC	1140
TTGGCTCAAA	CACCTTGCCA	TTGCGGATTT	GATTTTCTCT	TTTGTCTCGC	CATCTTCTTT	1200
ATCTACGCAC	TCGCAATCGG	AAAAGCAGGG	TAAGGGACAA	GCGCGAGATG	AAGATAAGGT	1260
TTCAATTCAA	GAGAAAAATC	AGCAAAATAT	TCTATGATAA	AAAGCATAG	AACAAGGTTT	1320
TGAAGACCTG	AACCTATGCT	TTTTTACGTT	CTTAAGAGCT	GTTTTATACT	AAAAACAGT	1380
TGAACAACCT	CAACCACTC	TTATAAGAAC	TTTATACTAT	TCGAGAATCT	CTTCAAAACA	1440

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CGTCAGCTCT ATCTGCAACC TCAAAGCTGT GCTTTGAGCA ACCTGCGACT AGCTTCCTAG	1500
TTTGCTCTTT GATTTTCATT GAGTATTAA TCTCCTTTTC CAATCGATAC AAATCTGGGA	1560
TAATAGCTGC GACATGTTTG ATATCTTCCA GCATGCCTCG CATTTCAAAG TCAGCCAATA	1620
CAGGGGAAGC AAAGCGTGA CTGTATTGCT TGGCTGTTAG GCAGTATTGG TTATTAAAGT	1680
TACGATTTCG TGACCCAAAC ACACCAAAAC ACTTACTAGC ATTGTTACCA TAGGCAATAA	1740
AATCTCCAC CGGTGTCGTC AAAATCTCAA CATCTCGGT ATCCAGCCCA TCCCACCTT	1800
CGAGATAGGT CGGCAAAAA GCGACATAGG GATGTTCCAT TTCATAGAAA TTTTTCCTT	1860
CCTTGACCAA ATCCTTGATA TGAATCTTTT GAACCTCAAT CCGTTTGTAC TGGGACAAGA	1920
GATATCTTTT CAAGCGCGTC ACAAACCTTT CAGTGTGCGC ACTCAAGG	1980

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7172 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

COGCATTTTT TATCACTAGA CTCGAGACAT CTTTGAAGT GCTCTGCTC TCTGGTTTAA	60
TTTTCTTCCT TGCTCAAGGA CTCTGCTAT TTCTCTGGT CGTCCGACTC AAACATCAAT	120
TCGCTGAGAT TTATCTCTCA ATCAATAAAA AGATTGCGTT CTACTATTTA GGGGTTCTCA	180
CCATTGATTT TCTATTTTTT GTTCTCTTAG CCTTCATTAG TTCACAGGT TTTTCATCTC	240
TTATGCCAAT CATCACTGCT TGCCATTCTA CTTTTPATTA TATGACAGCT GACTACCTAA	300
GAGAAACTA TCCAGACTTT TACGACAAAC ACATCTCTTT ATGGGAGTGT CTCCTAAGAA	360
AAGGAGGTTT TAGCATGAAA AAAATCATCT TCATCAAAAC CATCAACTC CTGTCATTC	420
ATGGAATCAT GCTGGCATTT TTGACATTTA AAAGGGGGCT TACTTGGGAC TGGATTTTGA	480
TTTATAGCGG TTGGCTCATT TTTCTTCATC CTGTGCTATT GACCTATCTT TCAAACCAAC	540
TTGTGACCA CTTTATTTAA CTCTATTCCC AGATTAGACC GAGATTCTGG CGTTTGTCTT	600
TACAAATCTC CCTATGGGAT AGCCTGATGA TTCTCTCCTT GGTGTCCTTA AGTGATATTC	660
CACCTTTTCT TCAGGGAAC CTCCTCATCC TAGGACATCT CATCCCTTCC TATCGCATCT	720
GCCAAAGCCT GAAAAGAGAC TTCCCCCAAG CATATCAAGA ACCGATTTCCT TTTTGGAGTA	780
TTTATGATGA GATGAGAAAG ACCAAGCCGA CTGGGCTTGG TCTTTCTTAT CTCTTTTATG	840
TATCTAGGAT AATGGTAACA GGTCCATTAT TAACCGCTC AACCTGATA TCTGCTCCAA	900

AGATGCGCTGT CTGAACGGGC ACTTCTGGC CTAATTTTG ATTGAAAGCA TCATAGAAGT	960
CTGATGCCAT ATCAGGTTTA GTCGCCCTG TAAAGCTGG ACGATTGCTT CTCTTAGTAT	1020
CGGCAAGAG GGTAACTGA GAAATAGAGA GGATTTCTCC TTCAATATCT TTGACAGACA	1080
GGTTCATCTT GCCTTCTGG TCTGAAAAA TCCGATATT GACCAGTTT CTCACAGCAT	1140
AGTCCAAATC TTCTCTTGG TCCTCTGGT CACACCAAC CAGCAATAAA AGTCCCTGAT	1200
TGATTTTTC CTGAATCTGG CCTTCTATAC TCACTTGGC TTTTFAAC CGTTGGATAA	1260
TGATTTTTC ATAGCCCTT CTAGTAAGAG CTAGGACAC TAGCCGTTGG TCCGTTTGAC	1320
AGAGTAAACT TCTGCACAC TCTTAATTT ATCGACAAC GTGCTCAGT TAGAGAGGTT	1380
GGCAATACG AAGGACACAT GGATATTAGC AAACCTCATA TCCTTGGTT GTTGGGCATT	1440
GACCGTGAA ATATTCTTGG TTGTATTGA AAGAAGTGC AGTACATCGT TCAACAGTCC	1500
TGTACGGTG AGACGTTAG TATCGATATG GCCATATAC TCCTTATTG AGCTAGGCTA	1560
CTGTCTTCC CATTCACAT CAAGGAGACG TTGCTCGTAG TTTTCTGGG CACGCGGTT	1620
CATACAGTCC ACAAGGTGAA TAGCCACAC ACGACCCCTG GTAATGTAGC CAACAATATC	1680
GTCAACAGG ACGGGTTAC AACACTTAGC AATCGCACT AGGAGACCAG AAGCACCTTC	1740
AATAACCACT CCCCCTCAT GCTTGACCT GAAGGTTC TTATTTCAA CCTTGACCTC	1800
GCCACCTTG ACAAGCTCT CTGCCACAG TTTGCCCTG GCACGCTCTT CCTCACGGCG	1860
TTCTTTTCA GTCAGACGGT TAAAGACGGT AATGCAACG ATTTCCCAA AACCAATGGC	1920
CGCAAAGAG GAGTCTTCTG TCTGTAACT GGTCTTTTG AGAACTTGAT CCATGTGGCG	1980
CTTGTCCAAT AATTATTTG CCACATAGCC ATTTCTTGG AACTGAGCCA TCAGCATCTC	2040
ACGACCCCTG TTGACAGACA ATTCTTTATC TTGGTTTTTA AAGAAGTGGC GAATCTTATT	2100
GCGCGCCTG CTAGCTTGA CCATATTGAG CCACTCACGG CTAGGTCCAA AGGAGTTCCG	2160
GTGGCGATA ATTTCAACCT GATCCCTGT CTTAACTTG GTTGTCACTG GAACCATGCG	2220
GCAATTGACC TTGGACCAAG TTGCTTTTTC ACGACCTTG GTATGGATT CGTAGGCAAA	2280
ATCAATCGGT CCTGAATCTT TGGGAAGGGA ACGGACAGT CCATCTGGG TAAAAAGTA	2340
AATCTCTCA GCCAATAGT TTTCTTAA CAGATCCACA AATTCCTTAG CATCATCAGC	2400
CTGTCTTGG AGCTCCATCA TCTCTTGAT CCAATTCATT CCAATAGCTG ATTCCTTGCT	2460
GTTAACTTGC CCTTTTATC TTTCTTATA AGCCAGTGA GCGCAACCC CGTACTCAGC	2520
CACCTCGTGC ATTCTCTTGG TTCGAATCTG GAATTCATC GGCCTTTTG GTCCATAAAC	2580
AGTCTATGG ATAGACTGAT AACCAATGGC CTTGGGGTGG GCGATATAGT CTTTGAAGCG	2640

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ACCTGGCATC GGTTCCTAAA ATTCATGCAC GTAAACCAAGC ATGGCATAAA CATCACTTTG	2700
GGTATCTAAA ATACAACGAA TAGCAATCAG ATCATAGATT TCCTCAAAAC GPTTCTCTCT	2760
GTCTCGCATT TTGCGGAAAA TTGAGTAAT ATGCTTGGGA CGACCATAAA TCTTCCCTTT	2820
CAAGTGCAGT TCTGTCGTAT ACTCCTCTAA TTTTGTGACT ACCTCATCCA CCAAGGCCTC	2880
ACGCTCCCTG CGCTTTTCTT TCATCATATG GGTAACTTTG TAAAACTCCG TTGGATTGAG	2940
ATAACGAAAA GACAAGTCTT CTAAATCCCA TTTGACACTG GAAATCCCCA AACGATGGGC	3000
AAGCGGGCCA TAGATTTCCT TGGTTTCTTT GGAAATACGC TCCCTGCTGT CTTTTCGAAG	3060
ATGTTTTCAGG GTCCGCATAT TGTGCAAGCG GTCAGACAGT TTGACCAAAA TAACCGGGAT	3120
GTCTCTCAGC ATGGCCATGA GCATCTTGGG ATGATTTTCC GCTAAATTGCT CCTCGATCGA	3180
TTTGTACTCG ACCTTGGCAA GCTTGGTAAC TCCGTCAACA ATCATCCGCA CATCAGGACC	3240
AAACTCTCTT TCCAAATCGT CCAAGTCGC ATCTGTATCT TCCACACAT CATGCAAGAA	3300
TCCACAAGAT ACTGTACAG CATCCAGCTT TAGCTTAGCT AAAATACCTG CCACTGGGAT	3360
AGGGTGAATG ATATAAGGCT CGCCTGATTT GCGATATGCA CCACTGTGGC ATTCACACAG	3420
ATAGACCAAG GCCTTATGGA CAAAATGAA ATCCTCTTCC GTTAAATATT CTTTGGTTAA	3480
AGCGACAACT TCTTCGCTG TTAATTCAC TTCTTTGGGC ATCTCTACTC TCCAAATCTT	3540
CCTACCATTT TATCACTTTT TTAAGAAATG GAAACTAGA TTGGAACAGA ATAAGAAAAA	3600
AATAATTCAA AATTGCTTGA TAATTCGAA TTATTGGTCC GTAAATACTC ACGAAGTTAG	3660
ATTTTAAACT TAGGTGATAG AAGGAGAGAT AGAAGAACGG AAACCATATT GTAACCCAAA	3720
GACTTTCTGA CTTCGCCAAT TCCATTGAAG ATACGAAAGA TAAACGGTGG AACTCGTATC	3780
ACATACACTG GTACCTTGAC TGGATTTTGG AATTAATACT AAATGAAAAA CAAAGAGCAA	3840
ACTAGGAJAC TAGCCGACGG TTACTIONAG CACCGCTTTG AGGTTGCAGA TAAAGTTGAC	3900
CGGTTTGAA GAGATTTTGG AAGAGTATAA AAATCCTCAA GATACCTTCT TCTATCCTTT	3960
AGTTTATAAG GAGAATACCT ATGAAAAJAA CTGCTATTTC TATCTTTGCT CTCCTAATGT	4020
TAGGAGTTTG CTGCTGTTC CTATTGAGCC AGCAAAGCTA TAAAAAACAG TCGTTCAATA	4080
CTATGCTAAC GACCAAGACC TGCCAGTAG GATAACTTAT AGTGAATATA GCGACAAATG	4140
AGAGCCCAAC TACGGTAGCA CTCTAAACAT CACGTCTATC AAACAAGCTA ATGACGGAGT	4200
TTATGCAACC TATGAAGGGC AATTGACACC TTTCCAATAT TGATAAATIG ATAACCAGCC	4260
TGTCTCTATC TAGTCATGCT GGTTTTAAAG TTCAATTTAA ATCCTTAACCT ATTCTCCCTA	4320
ACTGTGCTAT ACTTAATTTA TACTCAATGA AAATCAAAGA GCAAACTAGA AAGCTAGCCG	4380
CAGGCTGTTC AAGCACTGC TTTGAGGTTG CAGATAAAGT TGACCGCGTT TGAAGAGATT	4440

TTCGAAGAGT ATTAGTACAT TCTTTGAGAT TGGAGCTAGT ATGAAAATCC ATAAAACCGT	4500
GAATCCTGTT GCUATATGAA ATACCTATTA TCTAGAAGGC GAAAAGCACC TCATCGTGT	4560
CGATCCTGGT AGTCATTGGG AAGCCATTGG TCAGACAATC GAGAAGATCA ACAAAACCGAT	4620
CTGTGCTATT CTCTTGACCC ACGCCCATTA TGACCATATC ATGAGTCTGG ACTTGGTTTCG	4680
CGAGACGTTT GSCAATCCTC CTGTCTATAT CGCAGAGAGC GAAGCCAGCT GGCCTACAC	4740
TCTGTGCGAT AATCTCTCCG GTCTCCCTCG CCAAGATGAT ATGGCAGATG TGCTCACAAA	4800
ACCTGCAGAA CACACCTTTG TCTTTCACGA AGAATACCAA CTAGAGGAAT TTCGTTTTAA	4860
GGTTCTACCG ACCCCAGGGC ACTCTATCGG TGGTGTTCCT CTAGTCTTTC CTGATGCTCA	4920
TCTAGTCTTG ACGGAGATG CTCTATCCG CGAACTATC GGACGGACCG ACCTTCGGAC	4980
TGGTAGCATG GAGCAACTCC TTCATAGTAT CCAGACCCAA CTCCTCACCC TACCAAACTA	5040
CGATGCTAT CCAGGACATG GTCCAGCTAC TACTATCGCT CACGAAAAGG CCTTCAATCC	5100
CTTTTTCTAG CAAGATGATG ACAATCGAAA TTTAAGTAAA CTATCCAGCA AATCTTTCTA	5160
TTACAAAAGG CATCCATCA AGGTTTTCAC ACATGATTGG ATGCCTTTTT TCTGATGACT	5220
AGATTTTTTG CATTAACAAA TAATCACGCG CTCCTCTGGT GAACGCCACA TTCGCTCTCC	5280
TTCTTTGACA TCATAGGTTG TAAAGAAATC GTCGAACTTT GGTACTTGCA CATTGACACG	5340
GAGTTTGGCT GGTGCGTGCA CATCGACGCT AGCCAAAAGT TTCATAAAAT CTGCTCGACC	5400
TTTCATGGCC CAGATGCGAC CGAAGTTGTA GAAGAACTCT TCTGCTGAGA AGTCTGCTTC	5460
TCTCTTAGCT GCTTCAAGCG CTGCTGGGAT TCCCTCCAA GTCAGCCAGT TTCTGATAC	5520
AGTCAATTTA CCGTTAATGG TTGCTCCATA AGAATCCTGT CCATCAAAAT GGTCAATGAC	5580
TTTTTGTGTT TTCTCCTTGA AGGCAGCATA GTGCTCTCTT GTCCACCAAT CCTTGAGGCT	5640
ACCATTTTCG TCJAAGGAAG CCCCGTTAGT ATCAAAGGCG TGGGAAATTT CATGGGCAAT	5700
CACGCCCCA ATACCACCGT AGTTAGCAGA AGATGACTGA TGCAAGTCAT AGAAAGGCGC	5760
CTGTAAAAAT GCCGCTGGAA AGACAATCAG GTTCTTCTGA GGATTGTAGT AGGCATTGAC	5820
CATATGAGCA GGCATGCCCC ATTCCCTTATA ATCTACAGGC TGGTCCCACT TACTCCAAT	5880
GTGCTTGATT TCCACACGCG CAAAGGCTAG AGCATCTCA AAAAGACTGG CAGTTTCATT	5940
CACATCCTTA TCCTTGTAAC GTGAGGCCAA TTCTTCTGGA TAGCCATAT AAGGTTGAT	6000
CACATGAGC TTCAAGATAG CCTGTTTACA GGTTCCTGGA GTGAGCCAGT CATCTTAAAG	6060
CAGACGCTCC TTATAAACAT CAATCATGGT TGCCACTTTT TTCTCCACAT CCGCCTTGGC	6120
TTCTGAGAGG AACTTCTCAC GGGCGTACCA AAGACCCAGG GCTTGTGGA AAGGTTCTTG	6180

850

TGCTAGATGA TAAGTGTCTT TGACCTTATC TTTTGCCTCT GGAATCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTTAAA TAGCTGGTTG AAAGATTGAC	6300
AACACTCAA ATCAAGGTTG CTTTAAAGAG AGACCAAGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGTCTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAAT GCCCAATAC	6420
TGCTTTGAAG AAGTATCCA AAGGTAGGCC AGGCGCGAAT TTCTGAAAT CTTGCTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AATCGGCGG TCCAATTCAA GTCTTTTTTC TAGCAAGTCT TCAATTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGTCTCT TTCTTTCCAA AGAGTCAAGA GCTCTTCGG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCTT ATCTGGCAAG ATTGTGCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAAG GAAGGAAGTT	6780
TGTTTTCCT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGAA AAGTCTCCAA	6840
TTCTTGGAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CGGTACGCTT CTCTCTTCTC	6900
AAAATCAGCA ACTAGGCGGT GGTATTTGAC AAAGTTTCC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCACT TGTCTGTTGT CGCCAGCATC AGGTCTTCAA TTTCTGCTC	7020
TAAATCAACA AAACCTCTG TTTGAGACTT ATCTGCTGGG ATTTACGCTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAAAATCAT TTGATAACCT GTCATCTTGT TCTCGCTTTC	7140
ATTGTATATT GCATTATCT TAACAAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTGA TCGGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGT	60
GTTTGTATGA GTTTGTTTAG AGAGGATCTT TCTAAGTCTT TCTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTCTTA TCTAATTAT GGTATTCTCA GACTAAAAAG GAAATACGGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTTT GTCTTGACAT TCTCTTCTAA GGGTGTATAA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGAGTG ATGAGATGGT	360
TACAGAGGCT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTACCA AAACGCACGA	420

ACCTGTCGGA TCAAAAGCCT TGCAAGAGTC TATTTAACTCT AGCAGTGCAA CCATTCGTAA	480
TGACATGGCG GAAC TAGAAA AACAAAGGOTT GCTTGAGANG GCTCATACTT CAAGTGGTCG	540
GATGCCAAGT GTTGTCTGGTT TTCAGTACTA TGTGAAACAC TCACTGGATT TTGACCGGCT	600
GGCTGAAAT GAGGTATATG AGATTGTCAA AGCCTTTGAT CAGGAATTCT TCAANTTGA	660
GGATATTCTG CAAGAGGCTG CTAACCTACT AACAGACTG AGTGCGCTGA CGGTAGTGGC	720
ACTGGATGTT GAGCCGAGCA GGCAACGTTT GACAGCCTTT GATATCGTTG TTTTGGGGCA	780
ACATACAGCC TTGGCGGTAT TTACCTTAGA CGAGTCGCGA ACGGTTACTA GTCAGTTTCT	840
GATTCCAAGG AACTTCTTGC AGGAGGATTT GCTGAAACTG AAGAGCATCA TTCAGGAACG	900
TTTCTCGGT CACACCGTTT TAGATATTCA CTACAAGATT CGGACGGAGA TTCCCGAGAT	960
TATCCAGCGT TACTTTTACA CAACGGATAA TGTCTATGAT CTCTTTGAAC ACATCTTTAA	1020
GGAAATGTTT AACGAAACA TTGTGATGGC GGGCAAGGTC CATCTCTTGA ATTTTGCCAA	1080
TCTAGCAGCC TATCATGTTCT TTGACCAACC GCAAAAGGTG GCCTTGGAGA TTGCTGAGGG	1140
GTTCGCTGAG GATCAGATGC AAAATGTTCT TGTTCAGAG GGTCAAGAGT CTTGTTTAGC	1200
TGACCTAGCG GTAAATCAGTA GTAACTTCTT CATTCCTTAT CGGGGAGTTG GAATCTTAGC	1260
CATTATCGGT CCAGTTAATC TGGATTACCA ACAGCTAATC AATCAAGTCA ATGTGCTCAA	1320
CGGTGTTTTC ACCATGAAGT TGACAGATTT TTACCGCTAC CTCAGCAGTA ATCATTAAGA	1380
AGTACATTAA GATTGAAATC ATTTAAAGGAG GCGAACATGG CCCAAGATAT AAAAAATGAA	1440
GAAGTAGAAG AAGTTCAAGA AGAGGAAGTT GTGAAACAG CTGAAGAAAC AACTCTTGAA	1500
AAGTCTGAGT TGACTTTGCC AATGAACGT GCAGATGAGT TCGAAAAACA ATATCTTCGC	1560
GTCATGCGAG AATGCAAAA TATCCAACGC CGTGCCAAAT AAGAACGTCA AAATCTGCAA	1620
CGTATCGTA GCCAGGACTT GGCAAAAGCA ATCTTACCAT CTCTTGAGAA CTTTGAGCGT	1680
GCACCTGCGT TTGAAGTTT GACAGATGAT GTGAAGAAG GCTTGGGGAT GGTGCAAGAA	1740
AGCTTGATTC ACGCTTTGAA AGAAGAAGGA ATTGAAAGAA TCGCAGCAGA TGGCGAATTT	1800
GACATAACT ACCATATGCG CATCCAACCT CTCCCAGCAG ACGATGAACA CCCAGTAGAT	1860
ACCATCGCTC AAGTCTTTCA AAAAGGCTAC AAATCCCATG ACGCATCTCT ACGCCAGCA	1920
ATGGTAGTGG TGTATTAATA AGATATAAAG CCCGTAAGAA GTCGCGAGTA AAAATAGGAG	1980
ATTGACGAAG TGTTCGATGA ACACAGAAAA ATCTATCTTT TTTACTCAGA GCTTAGGCGC	2040
TGTTTCGATT GGCATTTCTG ACGGTAGCTA AAGCACTCTG TCAGAAAAAG GCAATCGCTA	2100
TGGGCTTTGC CTAGCTTCTT TACTAACTCG TCGTCGAAAT AAAATCGATT TCGACTTCTC	2160

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GTGTCGCAAT TTACATAATA GAAACTTGT CCGAAACGAC AATAAATAT GAAGAAAGAT	2220
AAAAATATGTT TGGCTTTGTA ATAGTGAGCG AAGCGAACCA AACACGATAC TCTTCGCCGT	2280
GGCGCTATTT GCGCAAAATTT TGAGACCTTA GGCCTCAAGT TTAGTCAAG AGATTGACGA	2340
AGTCAAGCTC TGACGGCGTC GCCACTGTGC CCACTTAAGA AGAGTATCAA AAAGAAAAAT	2400
AGAAATTTAA CTAACAAGGA GAAAAACACA TGTCTAAAA TATCGGTATT GACTTAGGTA	2460
CAACAACTC AGCAGTTGCA GTTCTTGAAG GAATGAAAG CAAATCATC GCAAAACCCAG	2520
AAGGAAACCG CACAACCTCA TCTGTAGTCT CATTCAAAA CGGAGAAATC ATCGTTGGTG	2580
ATGCTGCAAA ACGTCAAGCA GTTACAAACC CAGATACAGT TATCTCTATC AAATCTAAGA	2640
TGGGAACCTC TGAAAAAGTT TCTGCAATG GAAAGAAATA CACTCCACAA GAAATCTCAG	2700
CTATGATCCT TCAATACCTG AAAGGCTACG CTGAAGACTA CCTGGTGAG AAAGTAACCA	2760
AAGCTGTTAT CACAGTTCCG GCTTACTTCA ACGACGCTCA ACGTCAAGCA ACAAAAGACG	2820
CTGGTAAATG TGTGTTCTT GAAGTAGAAC GTATTGTTAA CGAACCAACT GCACGAGCTC	2880
TTGCTTATGG TTTGGACAAG ACTGACAAAG AAGAAAAAAT CTGGGTATTT GACCTTGGTG	2940
GTGGTACATT CGACGTCTCT ATCCTTGAAT TGGTGACGG TGTCTTCGAG GTATTGTCAA	3000
CTGCAGGGCA CAACAACTT GGTGGTGACG ACTTTGACCA AAAAATCAAT GACCACTTGG	3060
TAGCAGAATT CAAGAAAGAA AACGGTATCG ACTTGTCTAC TGACAAGATG GCAATGCAAC	3120
GTTTGAAGA TGCGGCTGAA AAAGCGAAGA AAGACCTTTC TGGTGTAACT TCAACACAAA	3180
TCAGCTTGGC ATTTATCACT GCAGGTGAGG CTGGACCTCT TCACTTGGAA ATGACTTTGA	3240
CTCGTGGCAA ATTTGACGAT TTGACTCGTG ACCTTGTTGA ACGTACAAAA GTTCCAGTTC	3300
GTCAAGCCCT TTCAGATGCA GGTTTGAGCT TGTCAGAAT CGACGAAGTT ATCCTTGTTC	3360
GTGGTTCAAC TCGTATCCCT GCCGTTGTTG AAGCTGTTAA AGCTGAACT GGTAAAGAAC	3420
CAAACAATC AGTAAACCTT GATGAAGTAG TTGCTATGGG TCGGCTATTC CAAGGTGGTG	3480
TGATTACTGG TGATGTCAG GACGTTGTCC TTCTTGATGT AACGCCATTG TCACTTGGTA	3540
TCGAACAAT GGGTGGAGTA TTTACAAAAC TTATCGATCG CAACACTACA ATCCCAACAT	3600
CTAAATCACA AGTCTTCTCA ACAGCAGCAG ACAACCAACC AGCCGTTGAT ATCCACGTTT	3660
TTCAAGGTGA ACGCCCCAATG GCAGCAGATA ACAAGACTCT TGSACGCTTC CAATTGACTC	3720
ATATCCAGG TGCACTCGT GGAATTCCTC AAATCGAAGT AACATTTGAC ATCGACAAGA	3780
ACGGTATCGT GTCTGTTAAG GCCAAGACCC TTGGAACCTA AAAAGAACAA ACTATTGTCA	3840
TCCAATCGAA CTCAGGTTTG ACTGACGAAG AAATCGACCG CATGATGAAA GATGCAAGAG	3900
CAACACCTGA AGCCGATTAAG AAACGTAAAG AAGAAGTAGA CCTTCGTAAT GAAGTAGACC	3960

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AAGCAATCTT TGCAGCTGAA AAGACAATCA AGGAAACCTGA AGCTAAAGGC TTCGACGCGAG 4020
 AACGTGACGC TGCCCAAGCT GCCCTTGTAT ACCTTAAGAA AGCTCAAGAA GACAACAACCT 4080
 TGGACGACAT GAAAACAAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTGTCTGTTA 4140
 AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GCGGCACAG 4200
 CAACAGGGAA CGCAGCGCAT GACGTCTGTAG ACGGAGAGTT TACGGAAAG TAAGATGAGT 4260
 GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTIT ATATATGATT TTGTAATCAA 4320
 GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTGAGCT 4380
 AGATATAGAG AATATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA 4440
 GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTGTATC GCGATGCTA CCGTATCTGA 4500
 CGAACGTTCA GCTTATAT 4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GCGTTTTGA TTGCCTTTGC CTTCGAAGTC CATTGGAAGC 60
 CCTCCATTA TCTGATTAC ATTACATCT GGTATTGGG AGGAACCCCC TTACTCTTGC 120
 AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTACAG CGCCTTCCTG 180
 CAGCTATTAT TGCCCTTGTG CTCACATATG CAGCTTACTT TGCAGAAATT TTCCGTGGGG 240
 GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTTGAAG TTTAGCCCTT 300
 TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGCTT 360
 TTAATGAGAT TATGAGTTTG GTCAAGGATA CTTCCTTTGG CTATGCTCTC GGAATTTTCA 420
 ACCTTATCTT GGCTAGTCGA ACAGCTGCTA ACCCGCATGC TAGTCTAGTT CCTATGTTCT 480
 TGGCAGGAGC CATTATTATT ATTTTGATTG GGATTGTGAC AATTATTCC AAAAAAGTTG 540
 AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA 600
 AAGTCTTTGG AGACAACAA ATCCTGTCTA ATTTCACTCT AAGTATTCTT GAAAAGCAAA 660
 TCCTTGCTAT CGTTGGACCT TCTGGTGGAG GTAAACAACT TCTTTTACCT ATGCTTGCAG 720
 GTCTTGAAAC CATTGATPCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG 780

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AAATTCAGAA	GCGCAATCTA	CTGGGATTTC	TCTTCCAAGA	TTTTCACATA	TTTCCTCATC	840
TATCAGTTCT	GGAAATTTTG	ACTTTATCGC	CTGTGAAGAC	CATGGGAATG	AAGCAGGAG	900
AGGCTGAGAA	GAAGGCGAGT	GGACTCTTGG	AACAGTTAGG	ACTAGGAGGA	CACGCAGAGG	960
CTATCTCTTT	CTCACTATCT	GGTGGGCAAA	AGCAGCGGGT	GGCTTTGGCG	CTGTCTATGA	1020
TGATTGACCC	AGAAATCATT	GGCTACGATG	AACCAACTTC	TGCCCTGGAT	CCAGAATTAC	1080
GTTTGGAGT	GGAGAAGCTA	ATCTTGCAAA	ATAGGGAAC	TGGGATGACC	CAGATTGTGG	1140
TTACCCATGA	TTTGAGTTT	GCTGAAAATA	TGCGAGATGT	ATTATTGAAA	GTAGAACCTA	1200
AATAGGAGGA	AAATGGGATG	AAAAATGGA	TGCTTGTATT	AGTCAGTCTG	ATGACTGCTT	1260
TGTTCTTAGT	AGCTTGTGGG	AAAAATCTTA	GCGAACTAG	TGGAGATAAT	TGGTCAAGT	1320
ACCAGTCTAA	CAAGTCTATT	ACTATTGGAT	TTGATAGTAC	TTTGTGTCCA	ATGGGATTTG	1380
CTCAGAAAGA	TGGTCTTAT	GACGAGTTTG	ATATTGATTT	AGCTACAGCT	GTTTTTGAAA	1440
AATACGGAA	CACGGTAAAT	TGGCAACGA	TTGATTGGGA	TTTGAAAGAA	GCTGAATTGA	1500
CAAAAGGAAC	GATTGATCTG	ATTTGGAATG	GCTATTCCGC	TACAGACGAA	CGCCGTGAAA	1560
AGGTGGCTTT	CAGTAACTCA	TATATGAAGA	ATGAGCAGGT	ATTGGTTACG	AAGAATCAT	1620
CTGGTATCAC	GACTGCAAA	GATATGACTG	GAAAGACATT	AGGAGCTCAA	GCTGGTTTAT	1680
CTGGTTATCG	GGACTTTGAA	GCAAATCCAG	AAATTTTGAA	GAATATTGTC	GCTAATTAAG	1740
AAGCGAATCA	ATACCAAAAC	TTTAATGAAG	CCTTGATTGA	TTTGAAAAAC	GATCGAATTG	1800
ATGGTCTATT	GATTGACCGT	GTCTATGCAA	ACTATTATTT	AGAAGCAGAA	GGTGTPTTAA	1860
ACGATTATAA	TGCTCTTACA	GTTGGACTAG	AAACAGAAGC	TTTTCGGGTT	GGAGCCCGTA	1920
AGGAAGATAC	AACTTGGTT	AAGAAGATAA	ATGAAGCTTT	TTCTAGTCTT	TACAAGGACG	1980
GCAAGTTCCA	AGAAATCAGC	CAAAAATGGT	TTGGAGAAGA	TGTAGCAACC	AAAGAAGTAA	2040
AAGAAGGACA	GTAAGATAAA	ATAGTGGCTG	AAACTCCGTT	TTGATTAGCA	AAACGTAGTT	2100
TTTTTTGTAA	TCTAGGAAAA	CGATAATAGC	GATTGAATAT	GGATAATTGA	ATATGGAATA	2160
GCCCACTGTG	ATTTCTAAAA	CATTGTTAAA	AATTGATTTC	ACTTCCAAAA	TTAAAATGTT	2220
CTGTAATGAA	ATACTGATGT	AACGTGTTTA	GGAAACAATA	AACGCATAAT	ATCAAGGTTT	2280
TGCACTCTTA	CATTATGCGT	TTTTGTGATT	TTAAGACTTG	TTAGCTGATT	TTTTACAATC	2340
CTGCGAAATC	TTTGATTCTT	TGTGCTGACA	TTGAAGAGTC	GCAACGGACG	TTGATTGTGC	2400
CATCTGTAAT	ATGAACAAAA	CCTGGTACAG	TTGGGATTCC	ATAGCGTGAG	CGGAATGCTT	2460
GCAAACTATT	GAGTTGGCTT	GGTCTCTTAC	TATTTGATGAA	GTAATATGTA	GCTTTGGTTT	2520
CAGCTACGAC	ACCTGACAA	GTACTCTGCA	ATTACGCA	GTAAGGCA	GTTTTCGAC	2580

CGATAAAGAA	GGTTGCAGTT	TCTTTTTTAT	CAAGAGCTTC	TTGCGCACGC	ACAACTGTAG	2640
TGACTTCAAG	GTCTTTGATG	TTATCTAAAA	ATTGTTCAT	GAGATTACCT	CGCTTTCATT	2700
GATAAGTCTA	GTATGCCATA	AAGTTTCTAA	AATGTCTTAG	ATTGTGATAG	AAAAAAGATG	2760
AGGTTGGTTG	GTCTCATCTT	TTATAGTCTT	TTATTTTACA	AATGUAATGA	TTTCTGCTTC	2820
GATGTTAGCA	ATCTTAGCTT	GTGATTCCTC	GTGGTTTCC	CCTACAACTG	CAATGTAGAA	2880
CTTGATTTTT	GGTTCTGTAC	CTGAAGGGGG	AACGGCAATC	CATGAACCGT	CAGCAAGTGT	2940
GATTTTCAAC	ACATCACTTG	GAGGAGTTGT	CAAGTTTGTA	ACAGTACCCT	CAGCAACAGT	3000
AGCAGTTTGT	GCCTTGAAGT	CTTCTACGAC	AGTGATAGCT	GTTCGGTTC	ATTCTGTTGG	3060
AGCATTGTTG	CGAATTTAG	CCATAATGCG	TTTGATTGT	TCAGCACCAT	CGACACCTGA	3120
AAGAGTAACA	GAGATTGTTT	TTTCTGCGTA	GTAGCCATAT	TCTTTATAGA	TTTCTTCGAT	3180
ACCGTCAGCA	AGTGTCAAAC	CACGAGAAGC	GTAGTAGGCA	GCAAGTTTCA	CAACTACAAG	3240
AACGGCTTGG	ATGGCATCTT	TATCACGTAC	AATGGTTTA	ATCAAGTAAC	CGAAGCTTTC	3300
TTCAAAATCCC	ATCATGTAAG	TGTGGTTGTG	TTTTTCTTCG	AATCTCTGGA	TTTTTTCAGC	3360
GATAAATTTG	AAACCTGTCA	AGACGTTGAA	CATAGTTGCG	CCGTAGCTTT	CAGCAATCTT	3420
CGTACCAAG	TCAGTTGAAA	CGATAGATT	GCGAGAGCG	GCATTTTTCAG	GAAGAGTTCC	3480
AGCGTTTGTG	TGAGCTTCCA	AGATGTATTT	AGCCATGATA	GCACCGATTT	GGTACCTGA	3540
AAGGTTGAGG	TAGCTACCAT	CTTTTGTGAAG	AACCTTCAACA	CCAACACGGT	CAGCGTCTGG	3600
GTCAAGTTGCG	ACAAAGACAT	CTGCACCAAC	TTGACGACCA	AGTCTTTCAG	CAAGGCAAA	3660
GGCTGCTTGG	CTTTCTGGGT	TTGGAGATGT	TACAGTTGAA	AGTCTGGGT	CAGCAGTTGC	3720
TTGCGCTTCA	ACAACTTGAA	CAGAGTCAAA	TCTGTCTTGG	GCAAGAGCAC	GACGAGCCAA	3780
CATTTCACCA	GTACCATGAA	GTGGTGTGTA	GACAACTTTC	ATGTCTTTAC	CAAAATCTTC	3840
AATCAAGGCT	GGGTTGATGT	TTATGTCCCT	AACCTCTTTA	AGGTATTCTA	TGTCAACAGC	3900
TTGCGCGATA	ACTTCAATCA	AGCCAGAAGC	TTTTTCAGTT	TCCACATCAG	CAACTTCAAC	3960
TGCAAAATGGG	TTTTCGATTG	CACGGATATA	AGTAGTCAAA	GCCTCCGACT	CGTGTGGAGG	4020
CATTGTGCCA	CGCTCTTCAC	CGTAAACCTT	GTAAACGTTA	AATGGAGCAG	GGTTGTGGCT	4080
GGCTGTGACC	ATGATACCTG	CGAAACAGTT	GAGATGACGA	ACTGCAAATG	ATAGTTCTCG	4140
AGTCGGACGA	AGGCTTTCAA	ATACGTGAAG	TTTGATGCGG	TGTTTAGCAA	GAACGCGCG	4200
AGATTCAAJG	GCAAACTCAG	GTGAGAAATG	ACGGCTATCG	TAGGCAATTC	CTACACCGCG	4260
TTCTTCTCTCG	TTTCCACCTT	TTGACTCAAT	CAACAGAGCC	AATCTTTCAG	TAGCTTTGGG	4320

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AACAACGTAG ATGTTGATAC GGTTGTACC AGCACCAACC AAGCCACGCA TACCTGCAGT	4380
ACCAAAATCA AGATTGTGAT AGAAGGCATC TTCTTGTAGT TTTTCGTCCA TATTTTCCAA	4440
ATCITTGACGA AGGTAGTCAC GAAGCTCCAC AAAATCAACC CATTTCTGGT AATTTCTTGG	4500
GTAAGCAATT CAAATCTCC TTTATTTTA AAACATTTAA TCAGTTTAAT TATATCATTT	4560
TTTTTGTATT TAGTAAACCC TTATCTGCTT CGAACATCTC TTCAAACCCAG GTCAGATAAG	4620
ATTTTGGGGT TATATGATGT TGAGGCTAGG AAAAATTCAA TTTCAGTAAA AAAAGTAAAT	4680
CTTCTCATAA CAAAACATTG ATATAGTTAC TTAGTTTAAA ACAAGCATAT TATAATAAAG	4740
CTATGCAATA TAGTACTGAT TTTAAACAGC GAGCATTAGA TTACATCAAA GAGGGGCACA	4800
GCCATGTGCA GGCAGCCCAAG TTTTITGGTG TTGGCGTCAG AACTCTCTTC ACTTGGGAAA	4860
AGAAAGACGT GAACAAGAAC ACATAGAGAG GAAAAAGCGA GTCGTCAAAA ACCGAAAGAT	4920
TCCTTTGAGG GAATPGAAAG CCTTTGTAGA GGCTCATCCA GATGCTTTTT TACGGGAAAT	4980
TGCGGCAAT TTTGATTGTG CTGTTCTCTC AGTATGGGCA GCTTTAAAGC AGATTAAAGT	5040
CACTTTAAAA AAAGATGACG AGCTTTAAGG AACAGACCC AGAAAAGTAG CCTTATTTCT	5100
TAAGAATTTT AATAGTTTAA AGCACCTAGC ACCTGTTTAT ATTGATGAAA CAGGAATCGA	5160
CCGCTATCTC TATCGTCTTT ATGCAGGGGC TCCTAGAGGG GAGAAAGTCT ATGAAAAGAT	5220
TAGCGGACGT COTTTTGAGC GAACTTCAAT TGTTCGAGGA CAAGTAGACG GAGAGTTTAT	5280
AGCTCCCATG ATTTACAGAA AAAGCATGAC AAGCGATTTC TTTGTGGAGT GGTTCAAAAC	5340
GCAACTCCTA CCTGCTTTGA AGACACCTCA TGTATTGTGC ATGGGCAATG CTGGTTTCCA	5400
TCCCAAGAAC ATTTTGGATG AACTCTGCAT CCAAGATAAA CACTTTTCTC TACCTCTACC	5460
ACCTTATTCA CCGGATTTGA ATCCTATTGA GCAAGCTTGG GCTATCTTGA AAAAGAAAGT	5520
GACGGATGTA TTAAGGGAAG TTCCAACATAT TTTTGAATGT TTGGAATGCT TTTTAAAAAC	5580
TAGATGACTA TAACGGTTCT AAAGGAACCT ATCGAGTAGT CATTAAAACT AAGGATACGT	5640
CTGGTTAAGA GAAGACGGTA TACAATCAAA CCATTCCACC GTGTAGCCGAA ATCGTTTCAGA	5700
ATGAAGACTT GTATCAGAAAT GAAGACTTGT ATAAGAAAGG TTTGAATGTT GAACTTCCGC	5760
ACCAACCAAT TAAGGGATT TTTGAAGCAG AGTTTAAAAA TCGTATTAAAT GGAGTTCTTTA	5820
ATACTAAAAA AAAAAATAGT ACATTAAATC GTGTAAATAA AAAAACTATA CACCAGAGCA	5880
ACAAAAATC CATGATCAAT TTGAAGCAGA AGCAACGGAA GATGCTTAAA AACAGGCGCA	5940
TATTTGTGTT AATGTTGACC AGGATTTTCA TGCATATCT AAGTCTAATA AAAGTGGTTC	6000
AGACTGGAG AAAACTTTCA CAGTGAGGAT AACCAATAGS CTAGCAAATG ACTTGAAATA	6060
TGTCCTTAAA CAGGTGATA AAGTACTCC TAATACCCCA ACTTGCCTAA ACTCAGCTGC	6120

TTCTAAAGCT AAAGATGATG ACAGAGTATA TAAACTACTG AAGACTCTTA TACCAGSAGA	6180
AAATTACTTA TCATGTTAAG GATAATCAGC TAGAAGTAGA AACAGATAAA TACACATATA	6240
CTCCCGCTAG AAATGGTAGT AAGGAAGTTG GTATTCAAGA GTCAGATATA GCAGCAACTC	6300
TAAGTGGCGA TGAATATAAT TCTAATCGCC AAACITTTTGA GAGAGAATAC AAATACAAAA	6360
GCAAAATGCC TTAATAATGG TTGGGCTAGA TCTGGTCTCG AAGAGTTCAA AAGTTCTCC	6420
CACITTTGTAG GGGTAGACAA AGGGATTGTG CGAACGAATG TACTGACTGG TAAAAAACTA	6480
TCTGATAAGA TTAGGAAGA AGTGGGCTCT GGAGATAGCA AACTAGGAAA AGCGGCTAT	6540
TTCTCTACTG GGGATGTCTT ATTAGAAAA GATGTTGTGT CTATACCCT ACAAGTATT	6600
TCAGAGAATA ATGAAAGAGT AGGAGTAAAC ACTCAAAGTC ACCGTGTTCA GTATAATCTC	6660
CCAAATCTAG CTGACTTTTC AGTCATCCAA GATACTGTGG AACCATCAGC AACCCTTGT	6720
GAAAAAATCA TTCCAAAAT AAATATTCCC GAAGAAGAGA AAGGGAATAA ACCCGAAGAA	6780
ATCAAGAAAA AGAAAAAAC CTCAGAATTG GCAGAACTAA TCTCAGAAAA TGTGAAGTT	6840
CGCTATGTTG ATGAAACAAG GCGTTTGCTA TCATTGAAA ATGATACTGG AATTGGAGAA	6900
AAAGAAAGTG ACGGAACCTA CATTAACCAAT AAAAAACAAC TGATTGGTAC CAGCTATAAT	6960
GTCAAGATA AAAAACTCAG TAGCATGACT ACTACTGACG GAAAAATATTA TACTTTTAAA	7020
GAAGCAGATA CAAATCTCTG AAGTTTAACT GGAATATTG TAAGCGAAGG TAGAACAGTG	7080
ACCTTAGTTT ATAGAGAAAG CGAAGCGCCA ACCACTGCTA CAGTAACAGC CAATTACTAT	7140
AAAGAAAGTA GGCAAGAGAA GTTGGTAGAG TCTGTTATAA AAGCTGATTT AGCGATAGGT	7200
TCTGAGTATA CCACAGAAAT AAAAATATTG GAAGGGAATA CAACAACCTGA GGACAAAGAA	7260
GACCGAGTTA TCACAAGGAA AACAACATAC ACCTTGGTAG CAACTCTGTA AATGCGTAC	7320
CAGAAGACGG TGCAACAGTT GACTATTACT ACCGTGAGAA TGTTGAGGAA ACAGTGGTTT	7380
CCAAAACAGC AACCTCTACT GAGACGAAGA CTATAACGCG TATCATTCAT TACGTTGATA	7440
AAGTTACGAA CCAAAATGTA AAGAAGATG TTGTTCAAC TGTAACTTTA AGCGTACAA	7500
AAATCTAGAA CAAGGTCAGC GGAGTTGTAA CCTACGGTGA ATGACAACA GGAAACTGGG	7560
ACGAGTTTAT ATCTGGTAAG ATTGACAAGT ACAAAGATCC AGATATTCCA ACAGTTGAAT	7620
CACAAGAGT TACGTGAGC TCTAGTGATA AAGAAATAAC GGTAAAGTAT GACCGTTTAT	7680
CAACACCAGA AAAAAATATC CCACAACCAA ATCCAGAGCA TCCAAGTGT CCGACACCAA	7740
ACCCAGAACT ACCAAATCAA GAGACTCCAA CACCAGATAA ACCAACTCCA GAACCAGGTA	7800
CTCCAAAAC TGAATCCCA GTGAATCCAG ACCCAGAGT TCCGACTTAT GAGACAGGTA	7860

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AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAA GAAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTCGGCTTT TTCTCGGTT	8040
TTGAGAACGA GGTCTTTCCG AAGAATAAA AACGCTTACA AGTCTGTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTITTA AATATTTCC AGAAATCAGT TGCGG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8697 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATTT TGCACCTTTT CCATGTATGG TAAAGTTTTT	60
TCCTTTTITTA AAAAGGAAAA CGAGAAGAGG AGGTTCTTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTCCTT	180
ATCTGCAwAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAG AAGCGCTGGA AGTGGCAAGG CAGGAGGCAG	300
ACAAATGCTCT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTTAAGTATT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCACTTAG CAGGTTTTCT TAAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTGTTCG TGACAGAGAA TTCTCTGCG ACCATAGCTG GCGACCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTTGATTG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGACTTGGCT CAAAGACCTG ATTTACCCTA TGATGGTGGT CATTGAGACC	660
ATTCCGACCA TTGCCATAGC TCCTATCCTG GTCTGTGGC TAGGTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACRACC TTTCCTATCA TCGTTAGTAT TTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAATCCTGT GGCATTTTAA AATCCAGATT AGCCTGCCCTT ACTTTTATGC AGGCTCGAG	900
GTCAGTGTCT CCTACGCCIT TATCACAAC TGTGTATCTG AGTGTTGGG AGGTTTGTAA	960
GOTCTGGTG TTTATATGAT TCAGTCTAAA AAAGTGTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGAT TATCAGTCTT TTGGGTATGA AGCTGGTCGA TATCAGTGAA	1080
AAATATGTGA TTAATGGAA ACGTTCOTAG AATTAGAATG TTTCTGAAAA AGAAAAGAGG	1140

AAATCAAAAT	GAAGAAAACA	TGGAAGTGT	TTTTAACGCT	TGTAACAGCT	CTGTAGCTG	1200
TTGTGCTTGT	GGCTGTGGT	CAAGGAACGT	CTTCTAAAGA	CAACAAAGAG	GCAGAACTTA	1260
AGAAGGTGA	CTTTATCCTA	GACTGGACAC	CAATACCAA	CCACACAGGG	CTTTATGTGT	1320
CCAAGGAAA	AGGTTATTC	AAAGAAGCTG	GAGTGGATGT	TGATTTGAAA	TTGCCACCAG	1380
AAGAAGGTC	TTCTGACTTG	GTTATCAACG	GAAAGGCACC	ATTTGCAGTG	TATTTCCAAG	1440
ACTACATGGC	TAAGAAATTG	GAAGAAAGGAG	CAGGAATCAC	TGCCGTTGCA	GCTATTGTGT	1500
AACACAATAC	ATCAGGAATC	ATCTCTCGTA	AATCTGATAA	TGTAAGCAGT	CCAAAAGACT	1560
TGGTTGTGTA	GAATATGGG	ACATGGAATG	ACCCAACTGA	ACTTGCTATG	TTGAAAACCT	1620
TGGTAGAATC	TCAAGGTGGA	GACTTTGAGA	AGGTTGAAA	AGTACCAAA	AACGACTCAA	1680
ACTCAATCAC	ACCGATTGCC	AATGGCGTCT	TTGATACTGC	TTGGATTTC	TACGGTTGGG	1740
ATGGTATCCT	TGCTAAATCT	CAAGGTGTAG	ATGCTAACTT	CATGTACTTG	AAAGACTATG	1800
TCAAGGAGTT	TGACTACTAT	TCACCAAGTA	TCATCGCAA	CAACGACTAT	CTGAAGATA	1860
ACAAGAAGA	AGCTCGCAA	GTCAATCCAG	CCATCAAAAA	AGGCTACCAA	TATGCCATGG	1920
AACATCCAGA	AGAAGCTGCA	GATATTCTCA	TCAAGAATGC	ACCTGAATCT	AAGAAAAAC	1980
GTGACTTTGT	CATCGAATCT	CAAAAATACT	TGTCAAAGA	ATACGCAAGC	GACAAGGAAA	2040
AATGGGGTCA	ATTTGACGCA	GCTCGCTGGA	ATGCTTTCTA	CAATGGGAT	AAAGAAAAATG	2100
GTATCCTTAA	AGAAGACTTG	ACAGACAAAG	GCTTCACCAA	CGAATTTGTG	AAATAATGAC	2160
AGAAATTAGA	CTAGACACG	TCAGTTATGC	CTATGGTCAG	GAGAAGATT	TAGAGGATAT	2220
CAACCTACAG	GTGACTTCAG	GCGAAGTGGT	TTCCATCCTA	GGCCCAAGTG	GTGTTGGAAA	2280
GACCACCTCT	TTAATCTAA	TCGTGGGGAT	TTTGAAGATT	CAGTCAGGGA	GAATTGTCCT	2340
TGATGGTGAA	GAATAATCCA	AGGGGCGCGT	GAGTTATATG	TTGCAAAAAG	ATCTGCTCTT	2400
GGAGCACAA	ACGGTGCTTG	GAATATCAT	TCTGCCCTC	TTGATTCAAA	AGGTGGATAA	2460
GGCAGAGCT	ATTTCCGAG	CGGATAAAT	TCTTGCGACC	TTCCAGCTGA	CAGCTGTAA	2520
AGACAAGTAT	CCTCATGAAC	TTAGCGGTGG	GATGCCGAC	CGTGTAGCCT	TACTCCGGAC	2580
CTACTCTTTT	GGGCACAAGC	TCCTTCTCTT	AGATGAGGCC	TTTAGCGCCT	TGATGAGAT	2640
GACAAGATG	GAATCCACG	CTTGATATCT	TGAGATTAC	AAGCAGTTGC	AGCTAACAA	2700
CCTGATCATC	ACGCATAGTA	TTGAGGAGGC	CCTCAATCTC	AGCGACCGTA	TCTATATCTT	2760
GAATAATCGC	CTGGGCAGA	TTGTTTCAGA	AATPAAACTA	GATTGGTCTG	AAGATGAGGA	2820
CAGGAAGTC	CAAAAGATTG	CCTACAAACG	TCAATTTTGG	GCGGAATTAG	GCTTAGATAA	2880

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GTAGAAAAAT	AGGGAGTTGG	TGAAGATTAT	CTTTTACCAG	CGCCCTTTT	CTTTTAAAAA	2940
TGAGAAAAAT	TCGGTATAAT	AGTCAAACAA	GGTCAAGGTT	TAAAGAGAGA	GGTGGGTTTG	3000
TTATGAGATT	TAAAAATACA	TCGGATCATA	TTGAGGCCTA	CATCAAGGCG	ATTTTAGATC	3060
AATCTGGTAT	COTGGAGTTG	CAACGGAGTC	AGTTGGCAGA	TACCTTTTACG	GTGTGTCCTA	3120
GTCAGATTAA	CTACGTGATC	AAGACACGCT	TTACGGAAAG	TAGAGGCTAC	TTGGTTGAAA	3180
GTAAACGCTGG	TGGCGGAGGC	TACATTGCTA	TAGGACGGAT	TGAGTTTCT	AOTCATCATG	3240
AAATGCTCCG	GGAGCTGCTT	TACTCGATTG	GTGAGCGAOT	CAOTCAAGAA	ATTTATGAGG	3300
ATATTCTCCA	GCTTTTGOTT	GAGCAGGAAT	TGATGACCAA	GCAGGAGATG	AATTTGCTAG	3360
AATCAGTAGC	TTTGGATCCG	GTTTTAGGAG	AAGAAGCTCC	AGTTGTTCCA	GCAACATGC	3420
TACCTCAGAT	CATACAAGAG	GTAGATAGAA	AAGGAAAGTA	AGATGAACTA	TTCAAAAGCA	3480
TTGAATGAAT	GTATCGAAAG	TGCTTACATG	GTGTCGGAC	ATTTTGGAGC	TCGTATCTA	3540
GAGTCGTGCG	ACTTGTTCAT	TGCCATGCTT	AATCACAGTT	ATAGCTTAGC	AGGGGCAACT	3600
TTAAATGATT	ATCCGTATGA	GATGGACCOT	TTAGAAAGAG	TGGCTTTTGA	ACTGACTGAA	3660
ACGGACATATA	GCCAGGATGA	AACCTTTACG	GAATTGCCGT	TCTCCCTCG	TTTGCAGGTT	3720
CTTTTTTGATG	AAGCAGAGTA	TGTAGCGTCA	GTGTTCCATG	CTAAGGTACT	AGGGACAGAG	3780
CACGTCTCTC	ATCGCATTTT	GCATGATAGC	AATGCCCTGG	CGACTCGTAT	CTTGGAGAGG	3840
GCTGTTTTT	CTTATGAAGA	CAAGAAAGAT	CAGGTCAAGA	TTGCTGCTCT	TCGTGAAAT	3900
TTAGAAGAAC	GGGCAGGCTG	GACTCGTGAA	GATCTCAAGG	CTTTACGCCA	ACGCCATCGT	3960
ACAGTAGCTG	ACAAGCAAAA	TTCTATGGCC	AATATGATGG	GCATGCCGCA	GACTCCTAGT	4020
GGTGGTCTCG	AGGATTATAC	GCATGATTTG	ACAGAGCAAG	CGCGTTCTGG	CAAGTTAGAA	4080
CCAGTCATCG	GTCCGGACAA	GGAAATCTCA	CGTATGATTC	AAATCTTGAG	CCGGAAGACT	4140
AAGAACAACC	CTGTCTTGOT	TGGGGATGCT	GGTGTCCGGA	AAACAGCTCT	GGCGCTTGOT	4200
CTTGCCCCAG	GTAATTGCTAG	TGGTGACGTG	CCTGCGGAAA	TGGCTAAGAT	GGCGTGTTA	4260
GAACCTTGATT	TGATGAATGT	CCTTGCAAGG	ACACCGTTCC	GTGTGACTTT	TGAAGAAGCC	4320
ATGAATTAATA	TCATCAAGGA	TATTGAAGAA	GATGCCCAAG	TCATCTCTCT	TATCGATGAA	4380
CTCCACACCA	TCATGGGPTC	TGGTAGCGGG	ATTGATTCGA	CTCTGATGTC	GGCCAATATC	4440
TTGAAACCCAG	CCTTGCGCGC	TGGAACTTTG	AGAACGGTTG	GTGCCACTAC	TCAGGAAGAA	4500
TATCAAAAAA	ATATCGAAAA	AGATGCGGCA	CTTTCTGCTC	GTTCGCTTAA	AGTGACGATT	4560
GAAGAACAAC	GTGTGCGAGA	TAGTATGACT	ATTTTACAAG	GTTTGAAGGC	GACTTATGAG	4620
AAACATCACCC	GTGTACAAAT	CACAGATGAA	CGGTTTGAAA	CAGCGGTTAA	GATGGCTCAT	4680

CGTTATTTAA	CCAGTCGTCA	CTTGCCAGAC	CTTGCTATCG	ATCTCTTGG	TGAGCCGGCA	4740
GCAACAGTGC	AAAATAAGGC	AAAGCATGTA	AAAGCAGACG	ATTCAGATTT	GAGTCCAGCT	4800
GACAAGCCCC	TGATGGATGG	CAAGTGGAAA	CAGGCAGCCC	AGCTAATCGC	AAAAGAAGAG	4860
GAAGTACCTG	TCTACAAAGA	CTTGGTGACA	GAGTCTGATA	TTT'GACAC	CTTGAGTGGC	4920
TTGTCAAGAA	TCCCAGTTCA	AAAACCTGACT	CAAACGGATG	CTAAGAAGTA	TTTAAATCTT	4980
GAAGCAGAAC	TCCATAAACG	GGTTATCGGT	CAAGATCAAG	CTGTTTCAAG	CATTAGCCGT	5040
GCCATTCCGC	GCAACCAATC	AGGGATTCGC	AGTCATAAGC	GTCCGATTGG	TTCCCTTATG	5100
TTCCTAGGGC	CTACAGGTGT	CGGGAATACT	GAATTAGCCA	AGGCTCTGGC	AGAAGTTCTT	5160
TTTGACGACG	AATCAGCCCT	TATCCGCTTT	GATATGAGTG	AGTATATGGA	GAATTTTGCA	5220
GCTAGTCTTC	TCAACGGAGC	TCCCTCAGGC	TATGTAGGAT	ATGAAGAAGG	TGGGGAGTTG	5280
ACAGAGAAGG	TTCCGAATAA	ACCCTATTCC	GTCTCCCTCT	TTGATGAGGT	AGAGAAGGCC	5340
CACCCAGATA	TCTTTAATGT	TCTCTTGACG	GTCTGGATG	ACGGTGTCTT	GACAGATAGC	5400
AAGGGACGCA	AGGTGGAFTT	TTCAAAATACC	ATTATCATTA	TGACATCGAA	TCTAGGTGCG	5460
ACTGCCCTTC	GTGATGATAA	GACTGTGGT	TTTGGGGCTA	AGGATATTCT	TTTTGACCAG	5520
GAATAATATG	AAAAACGCAT	GTTTGAAGAA	CTGAAAAAAG	CTTATAGACC	GGAATTCATC	5580
AACCGTATTG	ATGAGAAGGT	GGTCTCCAT	AGCCTATCTA	GTGATCATAT	GCAGGAAGTG	5640
GTGAAGATTA	TGGTCAAGCC	TTTACTGGCA	AGTTTGACAT	AAAAAGGCAT	TGACTTGAAA	5700
TTACAAGCTT	CAGCTCTGAA	ATTGTTAGCA	AATCAAGGAT	ATGACCCAGA	GATGGGAGCT	5760
CGCCCACTTC	GCAGAAOCTT	GCAAAACAGAA	GTGGAGGACA	AGTTGGCAGA	ACTTCTCTCT	5820
AAGGGAGATT	TAGTGGCAGG	CAGCACACTT	AAGATTGGTG	TCAAAGCAGG	CCAGTTAAAJA	5880
TTTGATATTG	CATAAAAGAA	TAAAAGTATC	AGCATCTGAC	CATAAGTCAC	AGTGGAGTGA	5940
AATTCAATGA	AAATCAAAGA	GCAAACTAGG	CAGCTAGCCG	CAGGTTGCTC	AAAAACACTG	6000
TTTGAGGTTG	CAGATAGAGC	TGACGTGGTT	TGAAGAGATT	TTGAAAGAGT	ATGAAACTAA	6060
AACCTATAGC	TTCTAAACGA	TCCGTGGTTT	TCATCATTTA	ACACAAAATT	CATATGTTTA	6120
TTACCCCTCG	TCTATTGTGT	CTTAGAGCGT	GTGTAGTAGA	AAAAGAGCAG	TCTTATCTGA	6180
AATTTTATAT	CTTTCAAAGG	AGACCTGTTT	CTTTTTTGCA	TGTCAAATCC	GTCTAGAGTG	6240
GTATTTGAAA	AATCAAACATA	ATATTCAATG	AAAATCAAAG	AACAAACTAG	GAAGTAGACC	6300
GCAGGTGCTG	CAAAACACTG	TTTTGAGGTT	GTAGATAGAG	CTGACGTGGT	TTGAAGAGAT	6360
TTTCGAAGAG	TATAAGCTGC	AAGATGAATG	ATTTTCTTGT	ATTGACGTTG	TTGTTGACAA	6420

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AAAGTAGCGG ATAAATGAAA TCCATTCCAT TATCATAGAT GATAGGCTGG TAGGAAATTT	6480
TCAAATAGCA TACAGGAAAT AGATGTATGG AGTTCTGGTA GTAGAAAGGG AGAGAGATGA	6540
ACAATTTAAGT TGCAGATGAC GAGGAAATGA TTAGAGAAGG AATTGCAGCA TTCTTGACAG	6600
AAGAGGGTTA TCATGTCAAT ATGGCTAAGG ATGGACAAGA GGTCTTGGAA AAATTTCAAG	6660
ATCTCCCTAT CCATCTCAAG TACTCTGGAT TAATGATGCC TAGGAAGAGT GGTTTTGAAAG	6720
TGTTAAAAAG AATCAATCAA AAGCACGATA TTCTGTCTAT GGTCTTGAGT GCTCTGGGAG	6780
ATGAAACTAC TCAOTCACAG GTATTGTATC TCTATGCTGA TGATCATGTG ACAAACCTTT	6840
TTCTTTGGT ACTGCTTGTC AAGCOTATTA AGGCGCTTAT CAGACGTTAC TACGTCAATG	6900
AGGATCTTGG GCGATATCAG GATGTAAACAG TGGATTTTAC CTCTTACAAA GCACATTATA	6960
AAAATGAAGA AATTGATCTC AAACCAAGG AATTACTGGT ACTAAAGTGT TTGATTCAGC	7020
ATAAAAATCA AGTTTAAAGT AGAGAGCAGA TATTGGAAGA AATTTCAAAA GATGTAGCTG	7080
ATTTACCTTG TGATAGGGTG GTTGATGTCT ATATTCTGAT TCTTCGCAAA AAATTAGCTT	7140
TAGATTGTAT GGTGACTGTG AAAAAATGTT GGTATAAGAT TAGCTTATGA TAAAAAATCC	7200
TAAATTATTA ACCAAGTCTT TTTTAAAGAG TTTTGCAATT CTAGGTGGTG TTGGTCTAGT	7260
CAITCATATA GCTATTATTT TGACCTTTCC TTTTATTAT ATTCAACTGG AGGGGGAAAA	7320
GTTTAATGAG AGCGCAAGAG TGTTTACGGA GTATTTAAAG ACTAAGACAT CTGATGAAAT	7380
TCCAAGCTTA CTCCAGTCTT ATTCAAAATC CTTGACCATA TCTGCTCACC TTAAGAGAGA	7440
TATTGTAGAT AAGCGGCTCC CTCCTTGTCG TGACTTGGAT ATTAAGATGG GAAAGCTATC	7500
AAATTATATC GTGATGTTAG ATATTGTCTGT TAGTACAGCA GATGGTAAAC AGGTAAACCTG	7560
GCAATTTGTT CACGGGGTGG ATGTCTACAA AGAAGCAAAG AATATTTTGC TTTTGTATCT	7620
CCCATATACA TTTTGGTTA CAATTGCTTT TTCTTTGTT TTTTCTTATT TTTATACTAA	7680
ACGCTTGCTC AATCCTCTTT TTTACATTTT AGAAGTGACT AGTAAATGC AAGATTGGA	7740
TGACATATT CGTTTGATG AAGTAGGAA AGATGAAGTT GGTGAAGTTG GAAAAAGAT	7800
TAATGGTATG TATGAGCACT TGTGAAGGT TATTATGAG TTGGAAGTC GTAATGAGCA	7860
AATTGTAAAA TTGCAAAATC AAAAGGTTTC CTTGTCCGC GGAGCATCAC ATGAGTTGAA	7920
AACCCCTTTA GCCAGCTTTA GAATTATCCT AGAGAAATAG CAGCATATAA TTGAGAGATTA	7980
CAAGATCATC CCAAAATATA TTGCAAGAG TAATAATAAG ATTGACCAGA TGAGCCACTT	8040
ATTAGAAGAA GTACTGGAGT CTTCTAAMTT CCAAGAGTGG ACAGAGTGTG GTGAGACCTT	8100
GACTGTTAAG CCACTTTTAG TAGATATTTT ATCAGTTAT CAAGAATTAG CTCATTCAAT	8160
AGGTGTTACA ATTGAAAAAT AATTGACAGA TGCTACACAG GTCGTATGAT GTCTTAGGGC	8220

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ATTGGATAAG GTTTTGACAA ACCTGATTG TAATGCAATT AAATATTCAG ATAAAAATGG	8280
GCGTGTAAATC ATATCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCTCT	8340
AAGTCACCAA GAACTAGAAC ATTTATTGTA TATATCTAT CATTTCTCAA TCGTGACAGA	8400
TAAGGATGAA AGTTCCGGTT TGGGTCTTTA CATTCGAAT AATATTTTGA AAGCTATCA	8460
AATGGATTAT AGTTTCTCC CTATGAACA CGGTATGGAA TTGAAGATTA GCTTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTATT CTTTGTCTAG	8580
TAAGAAAGAA GGATACTAAT ATGCTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTT AAAGCCTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GCGCGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4317 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACCGCAAGGC AAGCTGACG CGGTTTGAAG AGATTTTTCGA AGAGTATTAG	60
TTGCGTTTAA AGGCATCCAC CATCGTTTGA AATCTTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTGA TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTAAATTC CTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAAATGT AAATTTCTGCC ATTTTCTTCT CCTTTTTTAG TTTCATTAGT	300
TTATTCGTAA AATCTTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAGAAGG	360
GAGGCCAATA TGAGACATAA ATTCCAGCAA GTTCTAAATA AAATACATGA TTTTTTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACCGCTGT TCACCTTATC TTGCTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAAATAG ATCAGCAAGG CCAGCAAAAT ATCGTGAAAA ATTTTTCCAA AAATGTGAGC	600
CGATTATCC GTATAAGCGA TATTCACGCG CTGCGATTGG TCCCTCAAC TGTCACAAAC	660
GCCCAAAAAA ATAGATTTAA GAAAGATGGA GATGTAGTTG CTTCATCCCA CTCTTTTTTC	720
TTAGCGAATT TGTCAAAAAT GTAAATGAAC TGCATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACCA TGTTCAACCA TAGATTGAAT CATACTGATA GTCCACGTT CCACCTTGCC	900

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TTCTTGTA	AACTA	CTTCTTAGT	GACTTGAGCA	AGATTTTGAC	GCAAAATCATC	960
TGTCAAAACA	TAAACAGTTT	GGGTCGCTT	CAAGATGGCT	TGGTAATCT	TATCTGGATT	1020
AAATTCAGCA	ATTTGCGCAT	TACGTTTGAT	TACTTGCATA	GGTTCTCTCT	TTATCTCTTG	1080
TTTTCTTTGA	TTTCTGCCAG	CATTTTTTCT	TCTTCTACTG	TCAGTTGATA	ATGTTCAAGT	1140
AAATCCGGTC	TGCGCTGTA	GTTTCTCTT	AACTCTCTGT	ACAATCGCCA	CTGAOGAATC	1200
TTTTCATGCT	GGCCACTCAT	CAATACATCT	GGCAGGACCA	TGCTCGATA	ATCATAGGGA	1260
CGTGCTACT	GAGGATATTC	TAAAGACCT	GAAGAAAAC	TATCATCTTG	GTGGCTAGAC	1320
TCTTGGCCAA	TCACTTCTGG	AATCAGGCGA	ACTGTAGCAT	CAATCATGCT	CATAGCTGCC	1380
AATTCTCCAC	CAGTGAGGAC	ATAGTCACTT	AGGGAATCT	CATCTGTTAC	CAAGGCTTTA	1440
ATGCGCTCAT	CATAACCCCT	ATAGTGGCCA	CAGATAAAGA	TTAGCTCTTC	CTCTTGAGCC	1500
AAATCTTCAG	CATAAGCCCT	ATCAAACTGC	TTTCCAGCAG	GATCAAGGAG	AATAACCGCC	1560
GGATTTTTCT	TTTCAATAGC	ATCAAGAGGA	TGGAATAATG	GTGTGCTCT	GAGCAACATG	1620
CCCTGACCGC	CTCGTAGGG	CTCATCATCT	ACATGACGG	CCTTTTCAGC	ATTTTCTCGA	1680
AAATPATGAT	ACTGGATATC	CAAGAGCCCT	TTTTCTCGAG	CCTTTCCAAC	GATTCAGTGC	1740
TCCAGTGGAG	AAAACATCTC	TGGAAGAGG	GTAAAAATAT	CAATCTTCAT	CGTCTAACCC	1800
TTCTAAGATT	TCCACATCGA	CCCGTTTACT	TGGAATATCA	ACATTTGAGAA	CCACTGCTGG	1860
GATATAAGGT	AAAAGCAAT	CACGTTTGCC	TTTTCTGTTG	ACCACCCAGA	CATCATTAGC	1920
ACCTGGTTGC	AGGATTTCCT	TGATGGTTCC	AACCAAGCTA	TCACCTCAT	AGACTTCCAA	1980
ACOGATAATC	TGCTGATAGT	AAAATTCAAC	ATCGTCTAGG	TCATTCAAAT	CTTCTCAGC	2040
GACCTTGAGA	CTGTATCCCT	TGTACTTTTC	GATAGTATTG	ATATGGTACA	TATCTTTGAA	2100
TTTAAATATG	TCAAAGTTCT	TCTGTTTACG	GTGGCTAGCG	ATGGTCACTG	TTTGACAAA	2160
CTGATCTTTT	TCATCAAAAC	AAACCAGCTC	AGCTCTTTT	TTAAACCGTT	CTTCTGCCAA	2220
ATCCGTCACA	GACAAGACTC	GCATCTCCCC	CTGTAAATCC	TGCGTATTAA	CGATTTTCCC	2280
AACATTAAGG	TAGTTTCATCT	TGTTCTCTGT	AATCTCCTTT	TTTTCATCTT	ATCTAACAA	2340
TTCTCGAATA	ATAGCCGCAA	TTTTTTCCGA	TTCTGACCAT	TGTAAATAAT	GGTGATTTCCC	2400
TCTTAAATAG	AGTTTATGAT	TGGAAGTCCA	ATATCTCTGAT	TCTCTGTACT	CTTTTCTCTC	2460
ATAAGGCTGA	CAAAAAACAA	ATACAGGAAT	ATGAGCTTCT	ATAGATACAT	CCTCAAAATC	2520
TTCTCTCAAT	ATCTCTCCAG	ATATCTGAAA	TTCTGGATCT	TGATTTTCCA	ACTCTAAGCC	2580
TTTTTTCTTG	ATTAATTTCC	AGATTTTTTT	ATCTGTTTCA	GGACTAAATG	TTGCTTGAGT	2640
TAACTTCTTA	AAATAAGTT	CAGGACACCA	CTCGTCAATC	AGCTTCATCT	GCTCTTCCAT	2700

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TTCTGGATAA GGATTTTCTG AAAAAATCAGC AACAATGACT TTTTTFAGTTG TCGGTTCAT 2760
 TGCTACTAAA GTCTGAGGCT TAATFGGTTT CTCGAGTAAT TTGCAAGCTA AAATTCACCT 2820
 CCAACTATGT GCACAAAGTA TATATTCAGA AATTCCTAAT TCTTCAAGTA CTTCATAAAC 2880
 CGCATCTGCA AGATTATCTA GATTTTTTCC AGCTTGCTCA TGAATCGGAC TCCTACCTGT 2940
 GTTCGGAAAA TCAATTGTCA AATAACCAAT TGTAGGAGGA GGTTTTTCAA GTATAAGTGA 3000
 AAAATTTTCA TAACCTGGTA GCAAACTGCG TCOSTTTAAA CAAACTAGCA CTTTCTTTTG 3060
 CTTTTGATAA GTAACAGGA GGCTACCAAT TTCGTAGAT ACTTCAAACC TCTTCATAAA 3120
 GAAATCCACT GATTCTATAT AATGAATTAT TAAAAATCCT TATCCTTTAT TTTATCAGGT 3180
 TCCAAGGATT TTCTCAAGTT GGAGGAAGGG GACAATATCT CTACTTTCCC TTCAATAATC 3240
 CTTCAAAATT ATGTTTATGT TGGTAATTAA TGGCTGCGGT TTTGTCTTTC TCAAAGACAG 3300
 TCTTGCTAAG GTCAATATGA TTAATAGCTA CGATTGCGAC GGTGTAGTAA ATGATATCAG 3360
 CCAGTCTCTT GGCAAGTTCC TCCTTCGAAT CCTATCCCTT CTTTTCGACC AGAGCGCCTA 3420
 TTCAAAACCT CGACTACTTC TCCGACTTCC TCCACTAACT TCATAAAGAG ACCCTCATCA 3480
 GTCGAGACT GCTGTTAATG TTCGATTAAG TAGTCTTGGG AATGCCTAAA CGTTCAATCT 3540
 TTTATAGTAT ATTGAACTA GAATAGTACA CCTTTACTTC TAAACATTG TTAGAAATCG 3600
 ATTTGACTGT CTTGATCGAT TTGTCCTGTT CTGTGTTTCA TTTACTATAT CTTCTATTCC 3660
 ACACAAAAA GCGAGACATC GGTCCCGCCC TTCTTATTTT TCGTCAATAA CGATTCTTAC 3720
 TTTTTGTAT TCAGTTGGGA CAGAGTAGAC AATGTTCTT ATCGCAGAAA TAGTGCAGAC 3780
 CTTACGACCG ATTACACGAC CCACATCGCT TTGATCAAGA TTCAATGAT ATTCCAAAAA 3840
 TTCTGGTGT TCTCAATCT TGATAGTTAA GGCATCTGGT TGTGAATTA AGGGTTTCAC 3900
 AATCGCAATA ATGAGATTTT CAATCGATTC CATCTGTCAA CACTACTTAA ACTTATTTTG 3960
 AAAATTTAGA ATCOTGGAAT TTTTTCATA CGCCTTCTTT TGAAAGGATG TTACGTACTG 4020
 TGTCTGAAGG TTGAGCTCCA TTAGCCAACC ATGCAAGAAC GCGCTCTTCT TTCAAAAGTA 4080
 CTTGGTTTTT AGCAACAAGT GGGTTGTAAG TTCCAACTGT TTCGATGAAA CGTCGCTAC 4140
 GTGGTGAACG TGAATCTGCT ACGTTGATAC GGTAGAAAGG TTTTTCCTTA GAACCATAC 4200
 GAGTCAAGCG GATTTTAACT GCCATTTTTA AAGTCTCAT TCTTAAATTT TTTATTTGCG 4260
 TGAAATAGCT GAGCTATTTA GCACATGTTT TATTATAGCA GATTTCCTGC ATGTGTC 4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs

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(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTTG ACTGGAAATG GTAGAGGGTT CTCGAAATTT CTGGAATGGT TAAATAAAG	50
ACAAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCACCTGCC CTCCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGSAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTITGTT TTCAAGAAAT TCATCGTATT GTTTTTCAT TTCGTTCAAT	240
ACITTTTCGT AGGCACCTTC AGATTTCAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGTT GATAGCTGTA TCAAAATGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTCAG ATTTACACATT GTCNGTATTTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATTCITTTCT AGAATTTTGG ATTTGTTGGT CTGTAACGTT TTCGTTGAG	480
TAAAGGATCC AGTTGTTACC AGTGTTCAT CCACCCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGGTT TTCTTTACCT TCAATTTTTT CCCAGTTCCT GCCTCTCGGA	600
CCGTAACAA GACCGTTCAA GAGTTCTGGG TTCGTATTCA AGAGGTTCAA GATTTCATT	660
GATTTTCTTT TGTCTTAGA GTTGTGTTGAG ATGACAAAGT TAGCAACTTG TGTGTTTGG	720
TTTTTCTTGA TGAAGTAGT AATGCTTTG ATTTGGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCTT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGTT GCGACGTCCT TTGGAATGTA GCCAGCTTCA	900
TAGAATTGTT GAAGAGTCTT CAACTGTTCT TTGAAACGAG GCACCTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGGTCGATA ACGAATGGAA GACCGTTGCG TACTGGGTAG	1020
TCAAAATTAT CAGATGGGAT GAAJAACTTTA CCAATAGCAA ATGGTACTAC GTCTGGAGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTTCGG TTGAAGGCAA AGTTTGTAGA TGATGCAAG	1200
TTGGTGCAAA CTGGAACAGC GTAAATCTTA CCAATTACAG TATTACCTCT GATGTAAGCT	1260
GGGTCAAGTG CTTGTAAAG GTCTTTACCT TCTTTTGTGT ACAATTCTGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGCAATATC ATAGTTTTC	1380
CCAGATGATG TGATAACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTTGG CACCAACTTT TTCTTCAATG ATTTGTTTGG CATTTCCTAA CAATTCAATC	1500
AAGTTGCTCG GTTTGTACCC GATTGGTAC ATTTGTATAA CAGGTTTGTG ACCTGAATCA	1560

GCAGCTTTT TGCTGTACC TGTCAAATTT CCACAAGCAG CAAGACCTGC AGCCAGAGCG	1620
ACTACACTAG CAGATGCAAA AGCATATTTT TTCCAGTTTT TCATGATAAA AACTCCTTTT	1680
TTTATTTTTT AACTTATAAA CAATGTAATG ATCTTATACT CAATAAAAAT CAAGAGACAA	1740
ACTAGAAAAC TAGCCGACAG CTGCTCAAAG CACTGCTTTG AGGTTGTAGA TAAGACTGAC	1800
GAAGTCAGTT ACATATATCT ACGGCAAGGC GACGTTGACG CGGTTTGAAT TTGATTTTCG	1860
AAGAGTATTA ACTTCACACA AGGGAAGTTG GGAAGTGAGA AATGTTATTT CTCAATAAGC	1920
ACTATTCTTT CACACCACCG ATAGTCAAACT CTTTACAAA GTAGCGTTGG AAAATGGAT	1980
ACAAAATCGC GATTGGAAAG GTTGCAACCA CAACCATGGC CATACGACCT GTTCTTTTCG	2040
GTAGAGCAAC TCCAGTTGA CCAATCAAGC CGACCGCTTT GGCAATGTAG TCCATATTTT	2100
GTGGAATTTG CATGAGCAAA TATTGCAATG GATACAAATT GTCACCTTTG ATGTAAAGAA	2160
GGCGTTGAA CCAATCATTC CAGAAACCA GAGCTGTTAA GAGCGTGATG GTTGGGATAC	2220
CTGGTAGTGA CAATGGCAAA CAGATTTGGA AGAAAATCG GCCTCACTG GCACCATCGA	2280
TACGAGCCGA TTCTAGAATG GCTTCTGGAA TGCTCTCTT GAAGAAGGAA CGCATCAAGA	2340
TGATGTTAAA TGGTGAGAGA AGCATTTGGA CAATCAAGGC CCAAAACAGT TCACCAAGCT	2400
GAAGTACACG GGTCAACATG ATATAACCTG GTACCAAAAC AGCGTTGAAC AACATACTGA	2460
GAAGGACGAA GATGGTAAAG AATCTGCGAT ACTTAAAGGT TGTCGGTGAA ATAGCGTAGG	2520
CATAGGTTGT TGTGATAAAG ACATTGTTCA ATGTCCCAAC TACGGTTACA AAGACAGAGA	2580
TGAAGAGGCG TTGTAGGATT TTATCCTTAA ACTGTGCCAA AAACCTCAAA CCGTCTAAGC	2640
CAAAATGGGA TGGGAAGAAG CTATAGCGGT ATTGGAGGAG GCTTTTCTCG TCTGTCACTG	2700
AAATAATGAT AACGAATACA AAAGGTAGGA TACAAGAGAG GGCAATCAAA CCGAAATGA	2760
TACTGAAGAA GATATCTGCT TTCTTACTGA AGGAOTGAAT GCCGACATTA TCANTTTTTT	2820
CTTTTTTAAT TTTCTTTTTT GCCATATCTT CCTCTTTCT AGAACAAAGC TGAOTTTGGA	2880
TCGACTCTC TTGCAAGCAA GTTTGATAGG ATAAACAGAA TCAAAACCAAC AACGGAATTGG	2940
TAAAGACCGG CTGCTGCAGC CATACCGATA TCTGCTGTCT GAGTCAAACC ATTAAAGACA	3000
TATACGTCCA AAACGTTGGT TACATTGTAA AGCTGACCAG CATTTGTGTG GATTTGATAG	3060
AAGAGACCGA AGTCTGCGCG GAAGATATTT CCGACTGCCA GGATGOTCAA TACAGTTACA	3120
AGCGGAGTCA ACTGAGCAAT GGTTCAGTTG CGAATACGTT GCCACTTCTT AGCTCCGTCC	3180
ACTGTGCGTG CTTCGTAGTA GGTTCGATCA ATTCCCATGA TCGTCGCATA GTACATGACA	3240
CTGCTATATC CAAAGCCTTT CCAAAATACCT AGGAAAAGTA GGAGATAGGG CCAGATGCC	3300

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AGGTCAGCGT AGAAATTGAC TTCCTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC	3360
CCTTTATCAA TATTTAGGAA GGCACTGTGA AAGAACTGA TGATAACCA AGACAAGAAG	3420
TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATCT TCTTAGAACG GAGCTCGCTG	3480
AGGATAATGG CAATCCCTAC AGATACAACT AAACCTAGAA AGATAAGGC AAGATTGTAG	3540
AGGACAGPAT TTCGTGTGAT AATAAAGGCG TCTCTTGAACT TAAATAAGAA TCTAAAATTA	3600
TCGAGTCCGA CCCATTACT ATTTATGATA CTATCTATGA AACCATTAAT GGTCACTGTG	3660
TAGTCTTTGA AGGCAACACC GTTCCCAANT ACTGGAATGT AAAAGATAG AATCAACCCAG	3720
AGTGCCCCGT GCAAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAAC	3780
TTTTCATAAA TTTCCTCCCT TTTTATTTTG ATATCCATCT AAAAACTCT TTTTAGACTT	3840
TTGATAACGA TTACATTAT AGTATACTCC TATTTCAGG TTAGGTTAAA CTCCTAATTA	3900
TAGAAAAAC TCCACAAAT ATGTAGCAGA TTTAAACTTT TATCACCACT ATCAAAACAA	3960
TGTCTTAAT CAATGTGTTA TTTTATCTCT ATTAGCCAG TGATGGCGTC ACTCTGTAT	4020
AAGCATCCAA CAACGGGGTA TACTGMAAAA TCTCCAGACT AGGGAACCTA GCGATAGTTC	4080
CTAATCTGGA GATTTTAAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATTAACCTCT	4140
TTAAGATTAT CAATCAACTC TGCTGCAGTA TGCTCAGAGC CTPTTTCATC TGCCAAGAAC	4200
AAAACTGCTT TTGAAGTTC TTTTGAAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA	4260
AGGTTTAGGT CTTPAAGAG TTTACTTAAT TCTTGGCTA ATTCTTAGAG TTTGATTGC	4320
AGACTCATCT TCTCTGCTG TTTCTTTGCC CGCTGTTGT CTTCCATCCT TAGTTGCTGA	4380
CTGGCTTTC TTAATGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC	4440
ACGTAAACCT TGCTCTGTC AACTATCATC TGCAAAAGCT TTATTAGCCT CTGCAAAAC	4500
CAGACGTGCT GAATCTGTGG TAGGATTGGA TACACCTGTC AATGATGCA AAAGATTTTC	4560
TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAAATCAA AAAGTATTAT ATAACAGTGA	4620
TATGAAATCA ACTAAGGAG AAATCCAAAC CATCAAAACA CTTTTAAAG ACTCTGATAC	4680
AGCTAAATAT CATAAACGCC TTCAAACTGT TCTATTTTGT CTGATGGGCA AATCTTATAA	4740
AGAGATTATA GAACTTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG	4800
TCAAATTAAT TTATGAAAT ATTTTAGCAG CCAAGGTGTA CTGTATAGA TTCAATACAC	4860
TATACTTGGT GGTTAGCTC G	4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13121 base pairs
- (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG GAAAAGGAGA CTAAAAATGA AGAAAAAATT TCTAGCATTT TTGCTAATTT	60
TATTCCCAAT TTCTCTCATTA GGTATTGCCA AAGCAGAAAC GATTAAAGATT GTTTCTGATA	120
CCGCTATGC ACCTTTTGAG TTTAAAGATT CAGATCAAC TTATAAAGGA ATTGATGTTG	180
ACATTATTAA CAAAGTCGCT GAGATTAAAG GCTGGAACAT TCAGATGTCC TATCCTGGAT	240
TTGACGACGC AGTCAATGCG GTTCAAGCTG GGCAGCCGA CGCTATCATG GCAGGGATGA	300
CAAGACTAA AGAACGTGAA AAAGTCTTCA CCATGCTGA TACTTACTAT GATACAAUAG	360
TTGTCATTGC TACTACAAAG TCACACAAAA TTAGCAAGTA CGACCAATTA ACTGGCAAAA	420
CCGTTGGTGT TAAAAACGGA ACTGCCGCTC AACCTTCTCT TGAACAATC AAAGATAAAT	480
ACGGCTTAC TATTAAUACA TTTGACACTG GTGATTTAAT GAACAACAGC TTGATGCTG	540
GTGCCATCGA TGCCATGATG GATGACAAAC CTGTTATCGA ATATGCCATT AACCAAGTTC	600
AAGACCTCCA TATTGAAATG GATGOTGAAG CTGTAGGAAG TTTTGTCTTC GGTGTGAAAA	660
AAGGAAGTAA ATACGAGCAC CTGGTTACTG AATTTAACCA AGCCTTGCTT GAAATGAAAA	720
AAGATGGTAG TCTTGATAAA ATTATCAAGA AATGGACTGC TTTCATCATCT TCAGCAATGC	780
CAACTACAAC TACTCTCGCA GGATTAAAG CTATTCCGTG TAAGGCTAAA TATATCATTTG	840
CCAGCGATTG TTCTTTTGCC CCTTTTGTTC TCCAAAATTC AAGCAACCAA TACACTGGTA	900
TTGATATGGA ATTGATTAAAG GCAATCGCTA AAGACCAAGG TTTTGAAATT GAAATCACCA	960
ACCTCGTTT TGATGCTGCT ATCAGTGCTG TCCAAGCTGG TCAAGCCGAT GGTATCATCG	1020
CTGGTATGTC TGTCACAGAT GCTCGTAAGG CAACCTTTGA CTTCCTCAGAA TCACTACTACA	1080
CTGCTAATAC CATTCTTGCT GTCAAAAGAT CAAGCAATAT TGCTTCTTAT GAAGATCTAA	1140
AAGGAAAGAC AGTCGCTGTT AAAAAACGAA CTGCTTCTCA AACCTTCTTA ACAGAAAAATC	1200
AAAGCAATA CGGCTACAAA ATCAAAACCT TTGCTGATGG TTCTTCAATG TATGACAGTT	1260
TAAACACTGG TGCCATTGAT GCCGTTATGG ATGATGAACC TGTTCTCAAA TATTCTATCA	1320
GCCAAAGTCA AAAATTGAAA ACTCCAATCT CTGGAACCTC AATCGGTGAA ACAGCCTTTG	1380
CCGTTAAAAA AGGAGCAAAAT CCAGAACTGA TTGAAATGTT CAACAACGGA CTTGCAAAAC	1440
TTAAGACAAA CGTGGAATTC CAAAGATTC TTGACAAATA CCTAGCTAGC GAATCTTCAA	1500
CTGCTTCAAC AAGTACTGTT GACGAAACAA CGCTCTGGGG CTTCCTTCAA AACAACTACA	1560

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AACAACCTCT	TAGCGGTCTT	GGTATCACTC	TTGCTCTAGC	TCTTATCTCA	TTTGTATATG	1620
CCATTGTCAT	CGGAATTATC	TTGGTATGTT	TTAGCGTTAG	CCCATACAAA	TCTCTTCGCG	1680
TCATCTCTGA	GATTTTCGTT	GACGTATTC	GTGGTATTCC	ATTGATGATT	CTTGACGCTT	1740
TCATCTCTCG	GGGAATTCGA	AACGTATCG	AGTCTATCAC	AGGCCAACAA	AGCCCAATTA	1800
ACGACTTTGT	AGCTGGAACC	ATTGCCCTCT	CACCTAATGC	GGCTGCTTAT	ATCGCTGAAA	1860
TCGTTCTGTG	TGGTATTTCAG	GCCGTTCGAG	TTGGCCAAAT	GGAAGCCAGC	CGAAGCTTGG	1920
GTATCTCTTA	TGGAAAACC	ATGCGTAAGA	TTATCTTGCC	ACAAGCAACT	AAATTGATGT	1980
TGCCAAACTT	TGTCAACCAA	TTCTGTTATCG	CTCTTAAGGA	TACAACATATC	GTATCTGCTA	2040
TCGGTTTGGT	TGAACCTCTC	CAAACTGGTA	AGATTATCAT	TGCTCGTAA	TACCAAGTT	2100
TCAAGATGTA	TGCAATCCTT	GCTATCTTCT	ATCTTGTAAT	TATCACACTT	TTGACTAGAC	2160
TAGCGAAAGC	CTTAGAAAAG	AGGATTCTGT	AATGGCAAAA	TTAAAAATTG	ATGTAAATGA	2220
TTTACACAGC	CACATATGAA	AAAATGAAGT	CCTAAAGGA	ATTACGACTA	AGTTCTATGA	2280
AGGAGATGTT	GTTTGATATCA	TCGGTCCCTC	AGGTTCTGTT	AAGTCAACTT	TCCTCCGTAG	2340
CCTCAATCTT	TTAGAAGAAG	TCACATAGCG	TCACATCACT	GTGAACGGCT	ATGATTTAAC	2400
TGAAAAAACA	ACCAATGTTG	ACCACGTCG	TGAAAAATATC	GGCATGGTAT	TCCAACACTT	2460
CAACCTCTTC	CCTCATATGT	CTGTATTGGA	CAACATCACC	TTTGCTCTTA	TTGAGCACAA	2520
GTTGATGACT	AAGGAAGAAG	CTGAGGAATT	GGGATGGAG	TTGCTTGAAA	AGGTTGGACT	2580
AGCAGATAAA	GCTAATGCCA	ATCCAGATAG	CCTATCAGGT	GGTCAAAJAC	AACGTGTGGC	2640
CATCGCTCGT	GGCTAGCAA	TGAATCCAGA	CATCATGCTC	TTGATGAA	CAACTTCTGC	2700
CCTTGACCTC	GAGATGGTTG	GAGACGTACT	TAACGTTATG	AAGGAATTGG	CTGAGCAAGG	2760
CATGACCATG	ATTATCGTAA	CCCATGAGAT	GGGATTGCT	CGTCAGGTTG	CCAACCGGCT	2820
TATCTTTACT	GCAGATGGCG	AGTTCTCTGA	AGACGGAACA	CCTGACCAA	TCTTTGATAA	2880
CCCAACACAC	CCTCGTCTGA	AAGAGTTCTT	AGATAAGGTC	TTAAAGCTCT	AAACTCAAAC	2940
TGTAAGGATT	TCCTTGCACT	TTTTCTACCT	CGTATTGGAA	TTTTTGATTT	TTCGGAAAA	3000
TATGTTAGAA	TTAAGTTTAT	GAAATGAGGT	TTCCATACAC	CTAGCAAGAC	TAGGAATAAA	3060
AATAGAAATT	AGGTAGCTAG	ATGTCATCTA	AGGTTATTGT	TACAATTTTC	GGTGGAGTGC	3120
GAGACTCGGC	TAAACGCAAG	CTCTACCCCT	CCCTTTTATG	ACTATATCAA	TCGGCAATC	3180
TTTCCAAAGCA	CITTTGCCGT	ATTGGAACTG	CCCGTAGACC	TTGGAGTAAG	GAATATTTTG	3240
AATCTGTAGT	TGTCGAGTCC	ATCCTTGATT	TGGCAGATAG	TACCGAGCAA	GCCCAAGAA	3300
TTGCTAGCCA	CTTCTACTAT	CAAAGCCATG	ATGTCATGTA	TTCGGAACAT	TATATTGCTT	3360

TGCGTCAATT ACAAGCTGAG CTTAATGAAA AATACCAAGT TGAACCAAT AAGCTCTTCT	3420
TCTTGTCTAT GGCACCTCAG TTCTTTGGAA CCATTGCCAA ACACCTCAA TCTGAAAACA	3480
TTGTGATGG CAAAGGTTTT GAGCGCTTGA TCGTTGAAA ACCATTGGT ACAGATTACG	3540
CAACTGCAAG CAAGTTGAAT GACGAACCTC TAGCAACATT TGACGAAGAA CAAATTTTCC	3600
GTATCGACCA TTATCTTGGT AAGGAAATGA TCCAAGCAT CTTTGAGTT CGCTTTGCAA	3660
ACTTGATTTT TGA AAAACGTT TGGAAACAAG ATTTTATCGA CAATGTTCAA ATTACCTTTG	3720
CGGAGCGCTT GGTGTAGAA GAACGTGGTG GCTACTATGA CCAATCCGGT GCCTCCCGT	3780
ACATGGTCCA AAACCACACT CTACAACCTC TTTCGCTCCT CGCCATGGAC AAACCAGCAA	3840
GCTTCACAAA AGACGAGATT CGTGTGAAA AGATTAAAGT CTTTAAAAAC CTCTATCATC	3900
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TTTTCCGTAC AGGTAAACGA CTGACTGAAA AAGGAACCTA TGTC AACATC GTCTTTAAAC	4140
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CAACGAAGG CTTCTCTCTT AGCCTAATG GGAAGCAAGT AGGAGAAGAA TTTAACTTGG	4260
CTCTTAACCT ACTTGATTAC CGTACAGATG CGACTGCAAC TGGTGCTTCT CCAGAACCAT	4320
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AAGTTGTGC GTCATGGAAG TTGATTGACC GTATTGAAA GCTCTGGGCT GAAATGGTG	4440
CCCCACTTCA TGACTATAAA GCTGGAAGCA TGGGACCTCA AGCCAGCTTT GACCTACTTG	4500
AAAAATTCGG TGCCAAATGG ACTTGGCAAC CAGATATCAC CTATCGTCAA GATGGTCGCT	4560
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AAACCTTCCA AGAGACCTTT CATAAAGTTT TCTGAGTTAA ACTCTCCAAT ATCATCGATT	4680
TTTTACACAA AACCAATCAA TTTTACAGGA ATATTGAGTT CTTACAGAAAT GGCTAGAAC	4740
ACACCTCCTC GAGCAGTCC ATCAATCTTA GTCAAAACAA TTCCCGTTAA AGGTGTGATT	4800
TTGCAAAATT CTTTGGCGTG TACTAGGCA TTTTGACCTG TTGATGCATC AAGTGCACAG	4860
AAGTTTTCAT GTGGTGCTTC TGGCACAACA CGTTTGATAA TACGACCAAT CTTTTCACAC	4920
TCAGCCATAA GGTATCTCTT ATTTTGACA GACACGACG TATCAATCAT GAGAATATCG	4980
ATACCTTCAG TCACGGCAGC TTCCAATACCA TCAAGACCA CGCTGGCTGG ATCAGCTTTT	5040
TCAGGTCAG TTACTACTGG AACATCTACT CGTCGGCCCC ATTACAGCTAG CTGAGCTACT	5100

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GCACCCGCAC	GGAAGGTATC	TGCTGCAACC	AGCATGACCT	TCTTACCAGC	TCTGTTGTAG	5160
CGGTGGGCTA	GTTTTCGGAT	AGAAAGTTGT	TTCCCAACAC	CATTTCACAC	AACAAGAGC	5220
ATAACTGTCA	AGTTATCTTG	GAAGTGGATG	CTTTCATCGT	AGCTACCATC	CTTTTCATAA	5280
AGCTCAACCA	ATTTCTCAAT	GATGACAGGA	CGAAGTACAT	CAGGTTTCTT	GGCATTTTCA	5340
ACCTTGGCTT	CGTAACGTAG	TTCTCCCGTT	AAAGTTAGAG	CGACTTGGAC	ACCAACATCA	5400
CTCATAATCA	GCAGTTCTTC	CAGTTCCTCG	AAAAATCTTT	CGTCAACAGA	GGCGAAGTTA	5460
GCAAAGAAGG	CATTCAAGCG	GGCACCAGAA	CCTGTGCGAG	TTTTCTTAAG	ACTGCGGTCA	5520
TATTTTTCTT	GAACAGTTTC	TTCTGTTTGA	GGAGCTTCTG	GTTCAGGCAC	TTCAGAATTA	5580
TTTTCTCTTA	CAGTTCCTTC	GTGCTCAAGC	TTCTCTTCCT	CTGGTAATTC	TTCTGAGTTT	5640
GGTAATCTTT	CTATTTCTTC	TTGAGAAACC	CCTACAGCTG	GCTCTGAATC	CTGACTTTCT	5700
TCAACTGTGT	CTTGGATTTT	CTCTTCTTGG	AACACAGCTT	GTTCACAAT	TTCAACCTCT	5760
GCTTCTTCTT	GAGAACTTC	CTCAACTCTT	GTGAAGGTAG	GATCAACATC	TTCAGACAAA	5820
TCAAGATTTT	CCAGAGCTTC	TTTTACAAC	TCTTCGATTT	TAGGTTCTTC	TTTTTTTTCG	5880
AATAGACGGT	CAAAACAATC	CATATCTTAG	TTCTCCTTTA	GCACATATTC	TTCGATAGCC	5940
CAGGCGACAG	CTTCTCATC	GTGGTTCATC	GGCGTCACTA	CATTTCGCGC	TGCTTTTACT	6000
TCAGGAACAG	CGTTTTCAT	AGCAACACCA	AGACCTGCCC	ATTCAATCAT	AGAGAGGTCA	6060
TTGGCTCTGT	CACCAACAG	CATCACTTGA	CTTTGGTCGA	TTCCAAGATG	GCTGATTAGT	6120
TTTGCCAAAC	CTGTGCTTTT	ATGAACATTC	TTTGGTGACC	ATTCTAGCAA	CATTTCACGT	6180
GATTTAAAGA	TTTCATAATT	GTCAAACAAT	TCTGGAGAAA	TCTTCTGAAT	GGCTGCATCC	6240
AAGGGTCTTT	GAGCAAGGC	AGTCACGCAT	TTGTTGTAGG	TCATTGACT	AGATAAGTCT	6300
TCAAAGTCCA	CTGGAACAAA	GGTCAAAGCT	GGATTGAATT	TGGCATAAAG	ACTTCTTTGG	6360
TCCGATTGGA	TTTGATAAAC	TGTTCTTTCT	GAGATGGCAT	CAAGAGGCAG	TGATAATTTT	6420
TCTGTTTCTT	CATACAAACG	TGCCACATCA	TCAATAGAAA	AGACTGTTTT	ATCAGGATT	6480
TCTCTGTAT	TTTTCTGAAC	TAATCCACCA	TTAAAGTAA	TGGTATACTC	ATCTTCTCTGA	6540
CCGTCACTCC	CTAATCATG	GAGAAAGAAA	TCCATGGCTT	TTAAGGGAGC	ACCAGTTGTC	6600
AATACGACCT	TGATACCACG	ATCACGCGCA	gCTTGCAAGG	TTTCTTGGT	ACGATCCGTC	6660
AGCCTTTTAT	CAGTAGTCAG	CAAGGTCCCG	TCCAAGTCCA	ATGCAATCAA	TTTTATATCT	6720
GCCATTATAA	GCCCTCCATA	TAAGCTATAA	CCGACCGTTC	CTTATGGTGA	CCAATCACAG	6780
TCTTTGCTAA	TTCTAAAATT	TCAGGTCGTG	CATTTTCAGG	AGCTACAGGA	TGTCCACAAA	6840
CCTGCATCAT	ATGTAAGTCA	TTAAGATTGT	CTCCAAAGGC	CATGACCTGA	TCCATTGTGA	6900

TACCAAGTTT TTAACTAAT TCAACAATGG CCACTCCCTT ATCGACATAG TCCAGAACAA 6960
 TATCAAATGGA TTCAAAGCCA GTTGTCATGG CCTTAACACC AGGAACGTTT TCGTTTACCC 7020
 AAGCCTCCCC ATCTTCCAGC GTTTCTTCTG TGAAGTTGGT TGTAAATTTG AAAATGTCAT 7080
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 GTTTATTTGAT ATCTACATAA GGTGAAGTTT TCAGCTTTTC AAAAGTTGCC AGATAAAAGT 7260
 CACGAGACAT AGTCGCTTCA TACAAGTCCT GACCTTGATA CTCTACCAA CTGCCATTTT 7320
 CCGCGATGAA AATAATGTCA TCACGAACAC CAGCAAAATA TTTTCTAGA GACAGAAATC 7380
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 ACCACCACTC ATGAGATTAA GAGACTGGAT TTTCTTGCTT GGTGTTTGA CAGAAATTTT 7860
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 TTTCAATACGT TTTTGCCCTT GCAGTCTGT CTAAAGCAA CGAGCTTCCG CTAGCTCTTC 8640

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CTGCAAGTTT	TGATAGCGTT	CTTGGATGGC	ATTTTGTGTTA	GACTTAATCT	CTTCAATCTC	8700
AGCTTCCAGA	TTTTGCTTGT	CACTGGAGAT	TGCAGCAAGA	CGCTCTTGGC	AGTTTTCCTT	8760
ATCCGCTTGC	CAATCTCCCT	CGGAAAGACG	ATCTATTTCC	TCTTCTTGGA	GTTTCCAAG	8820
AGTTTCCAGT	TCTTCAACTT	GCTGACTAGT	TTGCTGATAA	GCGAGGAACA	AGCTTGTCTC	8880
CTGAATACGT	GCTCTGCTCT	CTTGAGATTT	AATAGCTTCT	AATGACTCGG	TCAATCTGGC	8940
CATCTCATCT	TGCAAGGTCT	TCAAAGTCGC	CTCTTCTGAA	CCCAAGCTTG	CTTCTTCTTC	9000
AGCAATTTCT	TTTTGTAAAT	GCTCCAGTTC	TGGCTTGATA	AAAATGCTGT	TATTCTGGCG	9060
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ACGAACCTGA	TACGAACCTT	GGCGAGCTGC	TGCAAGCGCA	TGTTCTACGG	TATCAAGAT	9180
AGCCGTCTGA	GCTAGCAAGT	TCTTGAATAA	GGCTTCCAGT	CTAGTATCAA	AAGTCAACAA	9240
CTCATCTGCC	ATCCCAAGGA	AACCTGGGCT	TACAGCGATA	GCATCTTGGT	TCTGACTAGA	9300
AATCGTACGC	GCTTGTATAG	TGGTCAAAGG	AAGAAAGGTT	GCACGACCGG	CTCTGTCCCG	9360
TTTAAGGAAG	TCAATAGCCT	TGTTTGGCGA	CTCTTCATCT	TCTACGATGA	TATGCTGGCT	9420
ACTTGCCCTC	AAGGCAATCT	CTAGGCGAGT	TTGATAATAA	ACATCAAAGG	TCAGATGCTC	9480
ACTGACTGCA	CCAATTAATC	CACCTAGCGG	ATCTTTTTCT	TGGAGAACAC	TCTTAACACC	9540
TGCAATAAAG	TTACTATGAT	TTCTCAGGAT	ATTTTCCAAA	CTTTGAGCTC	TGGCTGTGCT	9600
GTTTTTGAGA	TATCCAGAC	GGTCAAAGAG	TTGGCTTTGT	TGAGCTTGAT	AGGAAGTTTT	9660
CTGCTCCTCT	TGCTCCTTGG	CAATAGCTTG	GTAGTCAGCC	AATAATTTCT	GAACCTGTCT	9720
CTTGGCAGTT	TCAAGCTCTT	CTTTTGTCTG	ACTAGCCCTC	TCTTTAGCTA	TAGCTAATTG	9780
CTCTTTCAGC	TTTTCTAGTT	GATCTGCTTG	TTTTTGAAGA	AGCTGACGAC	TATTTTCCAA	9840
CTCATTTCTA	ATACGGGTCA	ACTGGTTTGA	GACATCCGCT	TCTTCTTGTA	AAAGAGCTAC	9900
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AGAGCTTTCT	TTATCAGACT	TTTCTTTGCT	GAGTGAATTT	CTCTATATCT	CCAAAGCAGC	10080
CAAAACGGGT	TGTGCTCTCT	GTTGATTCAA	GGCCACTTGC	TCGGACTCCA	GTTTCGATAG	10140
GGCTAATTTT	CTTTCTAAT	CACATATCAG	ACTAGTCAAG	TCCATCAAAC	TGCCTTGSTC	10200
TTTGCCCAT	TCAGCTCTGA	AATCTTGGCG	TTGCTTTTGA	AGAGTTTGAT	TTTCTTCTTC	10260
TAAATTTTCA	CGCTTTTGGT	AATAAATCAT	CAAGAGTTCT	TGAACCTGAG	TCAACTCTTC	10320
TTCTGTGAC	TCTAGTTCAG	CCTTATTTTC	CTTGATTGTA	GCAACAGAA	CATCTAATA	10380
AATAGCCTTA	CGTTGTCTTT	CCAAGCTAA	AAACTTACGG	GCATCTCAG	CTTGCTTCTC	10440

AAGAGGCTTG	ATTGTATTAT	CCAACTCGTA	GATAATGTCC	TCTAAGGGT	CCAGATTATC	10500
CTGAGTTGC	TGCAGTTTAC	TCGCGTTTC	TTTTCTGCGA	GTCTGTGATT	TTAAAACTCC	10560
AGCAGCTTCT	TCAAAAATAG	CTCGTCGTTT	CTCAGGCTTG	GAATTAAAAA	TCTCTCAAC	10620
CTTCCCTTGG	GAAATAATAG	AGAAGGAATC	TGCTCCCAAT	CCAGTATCCA	AGAAGAGGTC	10680
ATGAATATCA	CGCAGACGGA	CTTTCTTGCC	GTCAATCTTG	TATTGCTAT	CTCCACTACG	10740
ATAGACATGG	CGTTCACCC	TGATTTCTTG	ACCTGCATCC	TTGATAAATC	CGTCAATGATT	10800
ATCCAGAGTC	ACAACTACAG	AAGCATAATT	GAGCGGTTTG	CGACTTTCCG	TTCCAGCAAA	10860
GATGATATCC	GGCATCTTGC	CCCCACGGAG	ACTCTTGACA	CTAGACTCCC	CCAAAGCCCA	10920
ACGCAGACTT	TCTGTAATAT	TGGACTTTCC	AGATCCATTG	GGTCCAACAA	CTGCCGTAC	10980
ACCTTGGTCA	AAAACGACCT	TGGTCTTATC	AGCAAAAGAC	TTGAACCCCT	GAATTTGAT	11040
TTCTTTTAA	TACATGAATC	CAGCCCCCTC	TCAACGGCAT	TTTTGGCAGC	TTCTGTCTCT	11100
GCTAATTTCT	TAGAACGACC	TTGGCCTTGA	CCGATGCTCT	TACCTTCAAC	AAGAACTTCT	11160
ACATCAAAAA	CCTTATCGTG	AGCAGGCCCT	GTTCAGAAA	TCACCTGATA	ACGAATAGCC	11220
ACATCACCAT	TGACCTGAAG	CAACTCTTGG	AGATGGGTTT	TATAGTCTGT	AATCATCTCA	11280
AATCGGCTTG	CTTCAACCTT	AGGAATCATG	ACTTGATAGA	TAAATCTCTT	GACCTTGGCC	11340
ACATCTTAT	CCAAAAGAAG	GGCACCAAGA	AAGGCTTCAA	AGGCATCACC	AAGAATGGTG	11400
TCAGATTGC	GAOCACCTGA	TTTTTCTTCC	CCTTTACCCA	ACTTGATAAA	CTGGTCAAC	11460
TGGCAATCAC	GGCAAAACC	AGCTAAACTC	TCCTCACGGA	CAATCATAGC	ACGGAGTTTT	11520
GATAGGTAC	CTTACGGCTT	TTTAGGATAT	TTTTTATATA	GATATTCTGA	AATCAATTAAC	11580
TGTAGAACAG	CGTCTCCTAA	AAATCCAAG	CGTTCATGTG	GTGAAATTTT	TAAGAGGCGG	11640
TGCTCATTTG	CATAACTCGT	ATGAGTAAAG	GCAGTTTCCA	GTAACTTTTT	GTCTGCATAAT	11700
TCGATTGCAA	AATGATTCTT	TAGTACAGTT	TGTAATCTTT	TCATACCAAC	CTCTTTCTAA	11760
CTGATATATG	TCCTTTTTAT	TATATCAAAA	AAAGCCCCCT	GAGTCACTCT	AAAACGGGAC	11820
TGGAAAGCAT	TTGGGAATTC	TTTAGACAGA	GATTCTCAGT	TTTAGCGGCA	AATTTGGGTC	11880
AGGATAAGA	AAAAGCCCT	ATTAAAGGCT	TTTAGGATG	TTTACATCCA	CCCTGAGGGA	11940
ATCGAACCCC	CATCTCAAGA	ACCGGAATCT	TACGTGATAT	CATTACACT	AAGGTGGAA	12000
ACTTGTTTTA	TTATAACAGA	AATTTGCTCT	AATAACAAGT	TTTTTGTCA	AAGACCCCGT	12060
CTTAGTGGGA	AGCATCCCCA	TTCCAGATGG	AGTTTTTTCAC	GATCACATTA	TCAACGTGTT	12120
TAAGGTCAGC	AACCTGACGT	CCACCTGCAT	AAGAAATAGC	ACTTTGAAGG	TCTTTGTTCCA	12180

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TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACCT TTGCCCTTCCA	12240
CATTTTTGTA AGCACCCTTT TGATATTGTG AGGCTGAACC ATAAATATTCT TTGAACCTGT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCATATGT TCCTGCAGAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCCTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAACT	12480
GCCAAACCAC TGTACCAAAA CCAGTCTTAA CCTTGCTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCGCAT TTTCCAATTC ACGCACAGCT TCTGGTGTTC	12600
CCACATTTCC AGCAATGACA AAGGTATCTG GCAATTCCTT CTTGATGTGT TGAATCATAG	12660
AAATCACGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAA CCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CTTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAAAGGT	12840
GCATAATGA GAAGTAACCA CCTTTAGCCA GTTGCTCTCG TACATTTCA TCCAAAATCG	12900
TCTGCATATT CGCTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCTCTAA GTGACACTTG	12960
TATCCGCTTC TGCACGCTTT TTAATGACAC ATTTATTGTG AATCAATTGA ATATCTCGT	13020
AATCAAAAAT TGGAAATCA TTTAACATAT CGATGCTCG TTTCTTTGTG AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCTCG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9576 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTTACGCT TGAACCTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAATTC GTAAAACTA TATTGCTATT TTACCGGAG ATCGTGTAC TGTCGAAATG	120
AGTCCATATG ACTTGACAG TGGACGTATC ACTTACCGCT TTAATAATC GAAAACTTG	180
GAGGATAAAG AAATGAAGT AAGACCATCG GTCAAACCAA TTTGCGAATA CTGTAAAGTT	240
ATTCGTCGTA ATGGTCGCT TATGGTAATT TGCCCAAGCA ATCCAAAACA CAACAAACGT	300
CAAGGATAAG ATAGAAAGG AAAAAATGCG CTGCTATTGC TGGAGTTGAT ATTCGAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGGC TGCTCTCGA ATCTCAGAAG ATGTTCTGTG ACCTGATCTT ACATCAGATC	480

AAGAAGATGC	TATCCGTCGT	GAAGTGGATG	CAATCAAAAT	TGAAGGTGAC	CTTCGTCGTG	540
AATATAAACTT	GAACATCAAA	CGTTTGATGG	AAATCGGPTC	ATACCGTGGT	ATCCGTCACC	600
GTCGTGGACT	TCCTGTCCGT	GGACAAAACA	CTAAAAACAA	CGCCCGCACT	CGTAAAGGTA	660
AAGCTGTGTC	GATTCGTGGT	AAGAAAAAAT	AATATAGGAC	GTAAGAGTCT	TGGCTAAACC	720
AACACGTAAA	CCTCGTGTGA	AAAAGAATAT	CGAATCTGGT	ATTCGTCATA	TTACACGTAC	780
ATPTAAATAAC	ACTATTGTGA	TGATTACTGA	TGTGCATGGT	AATGCAATTG	CTTGCTCATC	840
AGCTGGTGCT	CTTGGTTTCA	AAGGTTCTCG	TAAATCTACA	CCATTGCGTG	CTCAAAATGGC	900
TTCTGAAGCT	CGTGTAAAT	CTGCACAAGA	ACACGGTCTT	AAATCAGITG	AAGTTACTGT	960
AAAAGGTCCA	GGTTCTGOTC	GTGAOTCAGC	TATTCGTGGC	CTTGCTGCCG	CTGGTCTTGA	1020
AGTAACAGCA	ATTCTGTGATG	TGACTCCAAT	GCCACACAAT	GGTGCTCGTC	CTCCAAAACG	1080
TCGCCGTGTA	TAATCATCGC	ATPACACTGC	TTTTCTTTTA	AGAGGGAGTA	ACTAAATGAT	1140
CGAGTTTGAA	AAACCAAAAT	TAAACAAAAT	TGATGAAAAT	AAAGATTATG	GCAAGTTTGT	1200
AATCGAACC	CTTGAACGTG	GCTACGGTAC	AACTCTTTGT	AACTCTCTTC	GTCGTGTACT	1260
TCTAGCTTCT	CTACCAAGAG	CAGCTGTGAC	ATCTATCAAC	ATTGATGGTG	TGTTACATGA	1320
GTTTGACACA	GTTCAGGTG	TTGCTGAAGA	CGTGATGCAA	ATCATCTTGA	ACATTAAGG	1380
AAATTGACGT	AAATCOTACG	TTGAAGACGA	AAAAATCATC	GAACTGGATG	TTGAAGGTCC	1440
TGCTGAAGTA	ACAGCTGGTG	ACATTTTGAC	AGATAGCGAT	AATGAAATTG	TAAATCCAGA	1500
TCATTATCTC	TTTACAATCG	GTGAAGGTTT	TTCTCTAAAA	GCGACTATGA	CTGTTAACAG	1560
TGGTCTGTGA	TATGTACCTG	CTGATGAAAA	TAAAAAGGAT	AATGCACCAG	TTGGAACACT	1620
TGCTGTAGAT	TCTATTATTA	CACCAAGTAC	AAAAAGTCAAC	TATCAAGTGG	AACCTGCTCG	1680
TGTAGGTGAC	AATGATGGTT	TCGACAAATT	AACCTTTGAA	ATCTTGACAA	ATGGAACAA	1740
TATTCAGAA	GATGCTTTAG	GGCTTTTCAGC	ACGTATTTTG	ACAGAACATC	TTGATTTGTT	1800
TACAAATCTT	ACTGAGATTG	CTAAGTCAAC	TGAAGTGATG	AAAGAAGCTG	ATACTGAATC	1860
TGACGACCGT	ATTTTAGATC	GTACGATTGA	GGAACGGAC	TTGTCTGTGC	GTTTCATACAA	1920
CTGTTTAAAA	CGTCCCGTA	TCAATACTGT	GCATGATTTG	ACAGAAAAAT	CTGAAGCAGA	1980
GATGTAGAAA	GTACGAAATC	TTGGACGCCAA	GAGTTTGGAA	GAACTGAAAC	TCAAACTCAT	2040
TGATTTGGGT	CTTGGATTAA	AAGATAAATA	AAGGAAGAA	ACATGGCTTA	CCGTAAACTA	2100
GGACGCACTA	GCTCAACACG	TAAAGCAATG	CTTCGCGATT	TGACAACTGA	CCTTTGTATC	2160
AACGAATCAA	TGCTGACAA	TGAAGCTCCT	GCTAAAGAAA	TCCGTAAAC	TGTTGAAAAA	2220

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ATGATTACTC TAGTAAACG TGGTGATTG CATGCACGTC GTCAAGCAGC TGCTTTCTGA	2280
CGTAATGAAA TCGCATCTGA AAACATATGAT GAAGCACTG ATAAGTACAC TTCTACTACA	2340
GCACCTCAAA AATTGTTCTC AGAAATCGCA CCTCGTTATG CTGAACGTAA CGGTGGATAC	2400
ACTCGTATCC TFAAACTGA ATCACGTCCT GGTGATGCAG CGCCAAATGC GATCATCGAA	2460
TTAGTATAAA ATCATCAATT TTGTTGAGTG TTATGATGAT GGAGTCTTGT GCTCTTAGTC	2520
TAGCTCTGCT CTACCGCTAG GATTTCGGTC CTAGCGGGAA CACTCATCAT AAGTTGGGAT	2580
AGTAGACGCT TGTTTACGAA ATTGTTTTTT TCTTAAGAAC AACTTCGTAA GCAGCGTTT	2640
TTGAGTATTT TCGTTAGAAT TATGCTATAC TATTTGAAAA GAATCCTGTT TAATGTTAAG	2700
GTTTCTTATT TTAAGAAGAA TTGGAGTTTA CTATGAAAG CCATTATAAC TGTGTGCGT	2760
AAAGATAAAT CTGGAATTGT TGCAGTCTT TCTGTTAAAA TTGCAGAAAT AGGATTGAAT	2820
ATTGACGATA TCTCTCAAACT TGTCTTGGAT GAATATTTTA CGATGATGCG TGTGTATCT	2880
AGTGATGAAA AGCAGATTT TACCTATCTT CGTAATGAAT TTGAAGCTTT TGGGCAAACT	2940
TTGAATGTAA AAATCAATAT TCAGAGTGCA GCGATTTTCG AAGCTATGTA TAATATCTAG	3000
GAGGTCAATCA TGGATATTAG ACAAGTTACT GAAACCATCG CCATGATTGA GGAGCAAAAC	3060
TTGATATTTA GAAACATATC CATGGGGATT TCTCTTTTGG ACTGTATCGA TCCAGATATC	3120
AAATCGTCTG CGGAGAAAA CTATCAAAAA ATTACGACAA AGGCGGCTAA TTTAGTAGCT	3180
GTTGTTGATG AAATTGCGGC TGAGTTGGGA ATTCTATCG TTANTAAGCG TGTATCGGTG	3240
ACACCTATTT CTCTGATTGG GGCAGCGACA GATGCGAOCG ACTACGTGCT TCTGCAAAA	3300
GCGCTTGATA AGGCTGCGAA AGAGATTGGT CTGGACTTTA TTGTTGCTTT TTCTGCCTTA	3360
GTACAAAAAG GTTATCAAAA GGGAGATGAG ATTCTCATCA ATTCCATTCC TCGCGCTTTG	3420
GCTGAGACGG ATAAAGTCTG CTCGTCAGTC AATATCGGCT CAACCAAGTC TGGTATTAAI	3480
ATGACGGCTG TGGCAGATAT GGGACGAATT ATCAAGGAAA CAGCAATCT TTCAGATATG	3540
GGAGTGCCCA AGTTGTTTGT ATTGCTAAT GCTGTTGAGG ACAATCCATT TATGGCGGCT	3600
GCLTTCATG GTGTTGGGA AGCAGATGTT ATCATCAATG TCGGAGTTTC TGGTCTGCTG	3660
GTGTGGAJAC GTGCTTTGGA AAAAGTTCTG GGACAGAGCT TTGATGTAGT AGCCGAAACA	3720
GTTAAGAAAA CTGCTTTTAA AATCACTCGT ATCGTCAAT TGGTTGGTCA AATGCCAGT	3780
QACAGACTCG GTGTTGAGTT TGGTATTGTG GACTTGAGTT TGCCACCAAC CCTCGCGGTT	3840
GGAGACTCTG TGGCACTGTG CCTTGAGGAA ATGGGGCTAG AAACAGTTGG CACGCATGGA	3900
ACGACGCTCG CTTGGCCCTT CTTGAACGAC CAAGTTAAAA AGGCTGGAGT GATGCGCTGC	3960
AACCAAGTCG GTGTTTATC TGGTGCCTTT ATCCCTGTTT CTGAGGATGA AGGAATGATT	4020

GCTGCGATGC AAAATGCTC TCTTAATTGA GAAAACTAG AAGCTATGAC GCCTATCTGT	4080
TCTGTGGAT TGGATATGAT TGCCATCCCA GAAGATACGC CTGCTGAAC TATTCGCGCT	4140
ATGATTGCGG ATGAAGCAGC AATCGGTGTT ATCAACATGA AAACAACAGC TGTTCGTATC	4200
ATTCCCAAG GAAAGAAGG CGATATGATTT GAGTTTGGTG GTCTATTAGG AACTGCACCC	4260
GTTATGAAGG TTAATGGGG TTCTGTCTGC GACTTCATCT CTGCGGTGG ACAAAATCCCA	4320
GCACCAATTC ATAGTTTAA AAATTAAAGAA AATAGGAGAA ATTTTAAGTT CTATTTAAGA	4380
TTAGACGTGT ATACTATAAT CATTAAATAA AGACCTCCTA ATATTATTTG AAACAGATAA	4440
CACTGAATTA GTTTGAATT GATTTTCATC TAATATCTTT ATTTAATGAA CTCTTAAACT	4500
TTTTCATAAT AATCTCCTTC AAAAGTCGCC TGTATGGGTG GCTTTTATTT TATCAITCAT	4560
GATATAATAG AAGCAACGG AGGACGGAAA ATGGTAAAG TACGATTGTA TTTGTATCCT	4620
CATGCCAAGA CCAATGTTAA CACGATTGGT CGCGCGCAAG GTTGGAGCGA TACTCCCTTA	4680
ACTGCTGAAG GTGAACGAGG GATTCAGAG TTAGGAATCG GTTTCGCGAGA ATCTGATCTA	4740
CAGTTTGAGC GTGCTTATTC GAGTGATTCT GGTCTATCCA TCCAGACCAT GGAATTTATC	4800
CTTGAAGAAC TTGGCTTGCA GGGGGAATC CCTTATCGCA TGGACAAGCG TATCAGAGAA	4860
TGGTGTTCG GTAGTTTGA TGGAGCCTAT GATGGCGATC TTTTCATGGG CATATTCCCT	4920
CGTATCTTAA ATGTGGACCA CGTTCACCAA TTGTCTTATG CTGAACCTGGC TGAGGGCTTG	4980
GTAGAGGTGC ATACAGCTGG TTGGGCTGAA GGTGGGAAA AACTCAGTGG CCGAATCAAG	5040
GAAGGCTTTG AATGATTGC AAAAGAAATG GAAGATCAAG GTGGAGGTAA CGCCCTTGTT	5100
GTGAGCAATG GAATGACTAT TGGAAACCAT GPTTATCTGA TTAATGGCAT GCATCCGCAT	5160
GGTCTGGATA ATGGTAGCTT GACAACTCTT GAATATGAGG AGCGCCAGTT TAGGGTTGAA	5220
GTGTGCGTG ACCGTAGTTA CCGAGAGCTA GGCAGTGAGA AGATGGAAGA AGGCTCTATT	5280
TAATCAGTCT AGACTTGCTT GCCATGAGCT AGGGATTGGA TAAAGATATC AAGATAAGAA	5340
AAACAGCCG AGGCGACTCC TTTCGGCTGT TTTTGTATGT GAAACATAAA GTGTAAATGCT	5400
ATTGCTTTTA GAGATTTTCA TAAACAAGAG CAAAGAACTT ACTGTTAGAA CAGTCAGGAT	5460
AGTTGACAA GTTGCGGCTA CACCGTAATT TCCTCTGAGA ACCTCTGTAT AAATAGCTAC	5520
AGTCATTTGT CTGTGTTTGA CATTTGTAGG GAGGATAGAA GTAGAGATT TTGAAATCAT	5580
TGTGACTCAA GATAAGATGG CTCAGAAAT GATACCAGAT AGCATCATTT GAGTTGTAA	5640
CTTAGCAAG GTATTGAGAC GACTACTTCC TAAAGCTTTCA GCAGCTTCTT CAATACTTGG	5700
TGCTATTTGT TGTAAAGCTAG CAACAGATGA GCGAATAGTA TAAGCTAATC TCTGCGCAGA	5760

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TAGAGACATA ATCAAGATGA AAGCAGTCCC TGTAATCATA AGAAATCCAC TTCCAAATAG	5820
ACCAATATTG AAGGAAGAAA TGAAGGCCAAT CCCTAGAACG GTTCCCTGGTA CAATATAAGG	5880
TACCATACTG AGGCTGTCAA TTAAGTTTGT AAACAAATTC CGTTTCTTAA CGGCTAGGTA	5940
GGAGATAAAT GTCCGCAATTA GAACAACCTAG AACTAAGGCA ATCAAAAGGA TACGAATGOT	6000
ATTGAAAJTA GCAGATCCCA TACGATGGAA AGCTACCTTG TAACGTGTTG GAGAATAAAC	6060
TTTAACAGAT ACCATACCTG ATGTTTTTAG GAAAGAGGTA TAAATTAAGT AGATTTGAGG	6120
TAAACAGAG ATAAAGATAA TTCCGTAGAC TGTTGCATAA ATGGCAGCCA TTTTTCCTTT	6180
TGTAGTTTTT TTAGGCTCAA TTGGATGGAG CAGATTGATG CTGAACCTGT AGCGGTTTTG	6240
AATGTGTTT TGGATAAGGA AAATTGCCAA GGCAATGATA ATCGCCATAA TTGCAAAAGC	6300
AGAATTTCTT CCAACCTGCG TAATAAATTG GGTATAAATC AGGACAGGGA AAGTCOGATA	6360
CCCTTCGCCA ATCAACATAG GCGTTCCAAA GTCTGAGAAT GCTCTCATAA ATACAAGCAA	6420
AGGCTGCTGA GTAAGGTGAG AACTAGGAGA GGTAAACCAA CCGTTACGAT AGGTTTAAAT	6480
CCGAGAGACC CCATGCTTTC AGCTGCTTCA AGTAGAGAAT TGTCAATACT GTTCATTGTT	6540
CCAGCAACAT ATAGAAATAC CAGTGGGAAT AGTTGCAGTG TAAAGACAAG TACAATTCCT	6600
TTGAATCAAT AAATATCGAT AGCTGGAAGA TAAAGGCGAT TTGTCAAAA TTTAGTGATG	6660
ACCTCATTTT GTCCTAGCAA GAGAACCCAG GAGTAGGCTC CTACGAAAGG AGCTGACATG	6720
GAAGCAATGA TAATCAATAT TTGTAGAAAT TTCTTCCCTT TGAAGTCATA CATAGAGAG	6780
AGATAAGCTA ATAGGGTTCC TACAACCTAG GAAGTGATAG TAGCGGTAAT GGAAACCTTG	6840
AAACTGTTGA CTAGTGCTC AGAGTAGTAG GCTTTACTAA AGAAAGTGAC AAAATTAGCT	6900
AGTGAGAATT GTCTTCATG TATAAGTGCT TGCTTGAGCA CGGTAAAGAT AGGATAAAGC	6960
AGAAAGATAG GATAGGTAAG AAGAGGGAAG AAAGAGGAAA CTGTCCAAT ATTTAGTTTT	7020
TTACGTTCCA TGTGTGACTC CTTTTATCAG GTTTTGGGAA CCATCTGCG AGAAGATGTT	7080
TAATTTTTC GTATTGATTG GTAGACGAAT ACGATTGCCT TTTTGTAGAT CTCTTCAAA	7140
AGTTGATTCT TCACTAATTT GAATTTTGA GGCAAAACCT GTCTCAATGA AATAATCCGT	7200
ATTTAGTCCA AGATAGACGC TATCTCTAAT AGTTCCCTCA ATATCTCCAG ATTCACTCTT	7260
GATAAACTCT TCGGAGCAAA TGCTTACATG AATAGCTTGC TCCTCAACCT GATCAAGAGC	7320
TGGCATTCGA AGGGCATAGC CATCTGAJAA GACGATATAA GGCCCGTCGC TCCGTTTTTC	7380
AAGATTGGCA GGGATAATA TTTGTGCTCC GATAAAGGTT GCCACAAAT CATTAGCTGG	7440
TTTATGATAG AGTTCTTTTG GTCGGCCGAT TTGTTGGATC ACCCCATCTT TCATAACAGC	7500
AAATTTGCTT GAAATAGCCA TGGCTTCTTC TTGGTCTGAG GTTACATAAA CAGTTGTAAT	7560

TCCACCTTCG TGTGGATT	CTCGGATGGC TTGACGCATA	TCCAAAGCGAA GTTTGGGCTC	7620
CAGATTACTA AGTGGCTCGT	CCATGAGGAG AACACTTGGA	TTAACCCTGA AGCGGCATGC	7680
CAAGGTGACA CGTTGTTGTT	GTCCACCACT GAGTTTATCG	GGCTTTCCGT CCGCATATTG	7740
AGCAATTTCG ATGAGTTCAA	GATACTTGTT GGTCCTTGA	ATCAATTCTT CTTTGGAAAC	7800
CTTCTTTTGC ATAAGACCAA	AAGCAACGTT GTCTCGGACA	GTCAAATGTG GGAATAATGC	7860
GTAGTTTGG AAAACCATCC	CGATATTGCG TTTGCTGGGT	TCCATATTAT TGATTTTTGT	7920
ATCATCGAAG TAAATTTCTC	CACCTTCGAT ACTGTTGAAA	CCTGCAATCA TACGAAGAAG	7980
GGTCGTTTTC CCACATCTCG	AAGCTCCAAG AAGGGTAAAG	AGACTTCCTT TTGGAATTGT	8040
AATGTTCAA TTTCTCAATA	ACGGACATC GTGGTAGATT	TTTTGGCGT TAATAAATTT	8100
GATCTCACTC ATAGTGAACC	TCTTTTACTG TTTAGATTG	ATATCTGTAA AGACTTCGTT	8160
GTATTTCTTA ACGATATCTG	ATTATTCTT GATGACATAA	TCAATCTT CAGTGAGTGT	8220
TTTGATTTTG TCAATTGGTT	TGATGTTTC GCTTGTTTTA	GCATTTTAC GAACAGGACG	8280
GTTAGTAGTG GTTGACCAA	GTGTATCTTG TACTTCTTGA	GAGATAATAA AATCGATAAA	8340
TTTCTTGCA CTTTCCATAT	TTTTAGATT TTTAACGATA	GCAGCACTAG CAGGTAGGAA	8400
GACGGTTCCT TCTTTGGAT	AGACTACCTT AATGTTAGCT	CCGTCAATTA AGAGTTTAAC	8460
TGCTGGATCT TCATAAGAGA	GACCAACAGC CATTTCTCCA	TCAGCGACTA CTTTATAGAC	8520
ACTAGATGAA CTTGAACCGA	TTTTACCATC AATAAGTGTG	AAAAGATCTT TTACATAAGA	8580
CCAAGCCTTA TCATCTTTGT	AACCACCTTG AGCTTGTAGC	ATATTGTGTA ATTGAGCAAA	8640
GGCGCTAGAA GAGTTTGCTG	GGTCAGCAGT TCGGATTPTT	CCTTTTAGTT CAGGTTTGAA	8700
AAGATCGTTA TATCTTCGA	TGTTCAATGCC TTTAGTTAAA	TCAAGGTGTA CGATTAATAAC	8760
ACTACCATCT AGTGATATAAG	GAGTAGAGTA GCCAGTTGTG	TTTTGATATT CTTTGATAAC	8820
ATTATCATTT TCTTTTGAAG	TATAGTTTTC AAAGAGTTCT	CCGTGGGTAG TATATTGTGT	8880
ATAAGRACCA CCAAGATAAA	CATCAGCTAC AGGAACCTCT	TTTTCTGACT CTAGTTTPTT	8940
GAAAAGTTCT CCAATACCAG	CTTGAATCAG TTCTACTTTG	ATACCATATT TTTCTTCAA	9000
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ATACATCCAT TTTCTTTTCA	TGATGGATAC CTCGCTGTGT	TTATTTAAGT TTATTTTAAA	9180
ACAATGTAA GCTTTTAAA	ACATACAAAT CTATCTATAA	GTGTATTGAA TCTATAACAG	9240
TACACTTTGA CTGCTAAAA	ATTTCTATAA ATTAATTTGA	CTTCCCTGAT AGAGATGTTC	9300

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ACATCTTATT TCAATTCAC TATATAGAGT AAAATTCTCT ACAAAGAA GAATAGCCTA	9360
TTTTACTATT CTCTGAGTG ATTTCAAATTC CTTTGGGAA ATATGGAGAT ACTTTTTAAA	9420
TCCTGACAAA TGGTTGTTT TTTTCTAAA TCGGTGATAC TGATCGGAG AATGCCCGTG	9480
AGGTACAAA GGCTGGGAT GAGCTCTAT GGAGAAATTC TTTTGGGAA GATTTTTTAA	9540
AGGAATGAGA CATCCGCTAC CTCCTTGAA GGTTTTGG	9578

(2) INFORMATION FOR SEQ ID NO: 128:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1340 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGCTGTG TGACATTCT TATTTCTATC TGTGTATCT TTTTGGGAA TATTTGGT	60
GTGTCTTG CTTTGGGCA ACGTTCAAAG TTTAAACGG TGTGTGTT GGCCAACTTG	120
TACGTTTGA TTTTCCGTG GACACGATG ATGGTTCAA TTATGATTG CTTGCTCTT	180
ATGCATATCA ATGCTCGAC TATTCAGATT GGAATTTAG GTGTTGATT TTGCGTCTG	240
ATTCAAGGA TTTGATPAT CTCTATGAAT AGTGGTGCTT ATGTTTCCA GACTGTTCT	300
GCCGGAATCA ATGCGGTTCC AAAAGGTCAG CTAGAAGCG CTTATTGCT AGGATTCTG	360
CCTAAAAATG CGATGCGTTA TGTGATTTG CCAAGGAGC TCAAAAATAT CTGCGAGCA	420
TTGGGGAAAG AATTATACAC CATATCAAG GACAGCTCC TCTTATCAG TATTTGGGTC	480
ATGAGTTGT GGAATGGGC TACAACAGT TCTACAAAC CCTATCACC TTTAACACCA	540
CTTTTATTG CAGCATTTTA CTACTTGATT ATGACCTCTA TTCTGACAG AGCCTTGAAA	600
GCTTTTGAA AACATATGG ACAAGGAGT AAGAAATAT GACAGAACCC TTGATAAAAA	660
TTGAAATTT ACATAAATCC TTTGGAAAGA ATGAAGTATT GAAGGCGATC AACCTGAGA	720
TTAAAAAGG AGAAGTTGT GTTATCATCG GTCTCTCAG GAGCGGAAA TCTACCTTGC	780
TTGCTCTAT GAATTTGTT GAAGAAGCA CCAAGCGGA GTTATCTTT GAGGAGTGC	840
ATATPACGA CAAGAAGAT GACCTGTTG CATGCGTGA GAAGTGGC ATGTTTCTT	900
AACATTCAA TCTCTTCTCT AATATGACT TGATGGAATA ATCACCTTG TCCCTATCA	960
AGACCAAAAG TGACAGTAAG GCGGTGACG AGAAAAGAGC TCAGGAAC TTGAAAAAG	1020
TTGTTTGGC AGATAAGGCA GACGCTTATC CACAGAGTTT GTCAGTGGC CAGCAACAGC	1080
GGAATGCCAT CGGCGCTGG TTGGCTATG AACAGATGT TTTGCTCTTT GACGAGCCAA	1140

CTTCAGCCCT	AGATCCTGAG	ATGGTGGAG	AAGTTCCTGGC	TGTTATGCAA	GATCTAGCCA	1200
AGTTCAGGAAT	GACCATGGTT	ATCGTAAACAC	ATGAGATGGG	ATTTTGCCCT	GAGGTGGCAG	1260
ATCGTGTCAAT	CTTTATGGCA	GACGCTGTGG	TGTGTGAAGA	CGGAACACCT	GAGCAGATTT	1320
TTGAACAAAC	CCAAGGACAA	AGGACTAAAG	ACTTCTTTAG	TAAGGTTTTA	TAAGTTAGCT	1380
TTGTTAGCT	ATTTGTAGCC	AGCTTTAAAC	GTTAAAGAGA	AGATTAGTGA	AAAGCTCAAC	1440
CAGAGCTTTT	TCTTATAGTT	TAAAGCTATA	GGATTGCCTA	GGAAAGAAGT	GTTAGAGCTA	1500
CATTGTATTT	TTTGGTATAA	TAAAGATAT	TTGTAAGAAA	AGAGAAGTGA	TATGACACAG	1560
ATTATTGATG	GGAAAGCTTT	AGCGGCCAAA	TTGCGAGGGC	AGTTGGCTGA	AAAGACTGCA	1620
AAATTAAAGG	AAGAAACAGG	TCTAAGTCCCT	GOTTTGGTAG	TGATTTTGGT	TGGGACAAAT	1680
CCAGCCAGCC	AAGTCTACGT	TGCGAACCAAG	GAGAGGTCAG	CCCTTGCGGC	TGGTTTCCCT	1740
AGCGAAGTAG	TACGGGTTC	AGAGACCAAT	ACTCAAGAGG	AATTGTTAGA	CCTGATGCT	1800
AAATACAACT	AGGATCCAGC	TTGGCATGGG	ATTTTGGTTC	AGTTGCCATT	ACCAAAACAC	1860
ATTGATGAAG	AGCGGTTCCT	ATTGGCTATT	GACCCAGAAA	AGGATGTGGA	TGOTTTCCAT	1920
CCTCTAAACA	TGGGGCTCT	TTGGTCTGGT	CATCCAGTCA	TGATTCCTTC	GACACCGGCA	1980
GGAAATTATGG	AAATGTCCCA	TGAATATGGG	ATTGACTTGG	AAGGTAAAAA	TGCAGTCCTC	2040
ATCGGTGCAAT	CCAATATTGT	CGGAAAACCT	ATGGGCCAGC	TCTTTTGGC	AAAGAATGCA	2100
ACAGTAACCT	TGACTCACTC	ACGTACTCAT	AATCTTTCCA	AGGTGGCTGC	AAAAGCAGAT	2160
ATTCTGGTTG	TTGCAATCGG	TCGTGCCAAG	TTTGTGACTG	CTGACTTTGT	CAAAACAGGT	2220
GCGGTAGTCA	TTGACGTGG	GATGAACCGC	GATGAAAATG	GTAAGCTCTG	TGGGGATGTT	2280
GATTATGAGG	CGGTTGCCCC	ACTGTCTAGC	CACATTACGC	CAGTCCCTGG	AGGTGTGGGT	2340
CCATGACCA	TTACTATGCT	GATGGAGCAA	ACCTATCAGG	CAGCACTTAG	GACATTGGAT	2400
AGAAAAATAG	ATAAAAAATT	TCTGAGGAAA	GCTATTTTC	TATAGCTATA	TCTAAAAATGA	2460
TAGAAATGAA	TATTAATTTT	TAGAAATAAG	TTTATAAAG	GAGGTTTGGC	CTCTCTTTTT	2520
GTTGTATAAT	GGAGTGAGGT	GATTAGATGA	TTTTAAAAAT	TTATAATGGG	GAATATAGTT	2580
TACAATGGGA	TGGAATATAC	TACTTAGCAC	TAAATTGATTA	TCCAATATAT	CAAGAGTGGG	2640
AATTAGAAAA	AATTGTCTAA	TTTATAGCTT	ACGAAAAACT	TCATAAACGT	CAAAACAGTA	2700
TTGAGTGTGC	TGATTCTTGT	TTAAAAAAG	AAATTTTAGA	TTACATCTGT	CAGCATCCCT	2760
TTCTGCCACC	ATTTACTCTT	ACAGATAAAA	GAGTAGCCTC	GACTTATGAC	CTACATAGA	2820
GOTTAGTGAC	TTTCAGACTAC	TGTAGTCAATA	CTACGACTAT	AGATGCAGCG	ATTTCTATTT	2880

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TTAAAACTGG	TCGTCCTTTA	TCTGCTGTGA	AAGCCTTTGG	GCGAGATGCT' GAGGAGTTGG	2940	
TTTTGGATAG	TCGAAAATGCT	GCATCTGATC	CGATAGATTA	TTTTGACTAT	GTCAATGTTAG	3000
GGTGGTCAAA	TACAAAGTCT	GTTATTCGAT	TGGCGATGGA	GCCTTTATTA	GGTCGAGCTC	3060
CTTCAGAGAA	AGAATTACAA	GACAAGTTTA	TTCTTGGAGT	AAGTTTTCAT	TTTATCTATA	3120
CAGATTGAT	TAAAGTCTCT	GTTTATATT	TTGATGGTA	CCATGCTGTA	AAAATTAAAG	3180
ACATGCTTAA	TTTATTAGT	GAGTGTGATA	TTTGCAATTAT	TCCAATCAT	AATAAGAGCC	3240
AATTGAAAA	TATTATCCA	ACCAAAATAC	AAGATAGGGT	GTATTATCTT	GACTATGCTG	3300
GAGAAGACTT	AGAAGAGTGG	ACTAAGAAAG	TCTATCAAGT	TGTTTTAAAA	CAATCAGATA	3360
AAGGATAGTT	GAGGAAAAAA	CGATGAAAGT	GATTGATCAA	ACCTTACTAG	AAAAGTCAT	3420
TATTGAACGT	TCTGTACAA	GTCAATAAAG	AGACTACGGT	CGCTCGCTGT	TGCTTGGTGG	3480
GACTTATCTT	TATGGTGGTG	CCATCATCAT	GGCTGCTTTA	GCAGCTGTAA	AAAGCGGTGC	3540
AGGATTGGTA	ACCGTTGGAA	CGGACAGGGA	AAATATCCCT	GCTCTACACA	GCCATTTGGC	3600
TGAGGCTATG	GCCTTTTCTC	TGCAAGATCA	GTAAATTGTA	CAAGAGCAAT	TGGAGAAGGC	3660
AGAAGTTGTC	TTGCTGGGGC	CTGGTTTACG	AGACGATACG	TTTGAGAAAA	ATCTGTATAA	3720
ACAGGTCTTT	GCTAGCTTAA	AAAAGAAATCA	GAITTTGATT	GTAGATGGAG	GGGCTTAAAC	3780
CATCCTTGCT	AGGACAAATT	TGTTGTTTCC	ATCTAACCCAG	CTTATCTTAA	CTCCCCACCA	3840
AAAAGAAATG	GA AAAAATCT	CTGGTATTGC	TATTGAAAAG	CAAAACGAAG	GTACAACATC	3900
TAGTGCCCTG	ACTTCTTTCC	CTCAAGGAAC	AATTTTGGTA	GAGAAAGGTC	CAGCTACTCG	3960
TATTTGGCAA	GTTGGCCAGT	CTGATTAATTA	CCAGTTAAAG	GTTGGCGGTC	CCTATCAGGC	4020
GACTGTGTGT	ATGGGTGATA	CACCTGGCTGG	AATGATTGCA	GGATTTCAG	GCCAATTTGG	4080
ACAGGCCAGT	CTCTACGAAC	GTGTGGCAGT	AGCAACCCAT	CTTCATTCAG	CCATAGCCCA	4140
AGAACTATCT	CAAGAAAATT	ATGTGGTCTT	GCCGACGGAA	ATTAGTAATT	GTCTTCTTAA	4200
AGTAATGAAA	AGATATGTCT	AAAATAGTTA	GACAAAAAAT	GTTGATAAAT	TGTATCATTA	4260
TTCTTAATTC	ACAAAAAGC	AACGTTTAGT	ATTCTTCTTG	CTAAGAAACT	AAATTTGTTC	4320
GTTTTTTTAC	TCTGTAAAT	CTATTTTTGT	TAGAGTTGAT	TTGGTTTACA	TCCGTACTTA	4380
AATTGATTTG	TTAGAGCTCT	ACTTTTATTA	AAAAAATICA	ATTCTAAGGA	TAAATAAGCA	4440
GATATCTAAA	GCTACTTTTA	GATGAAATAA	AAGCCTTTAC	ATGCTATAAT	AGAGGTAGCT	4500
CTTTAATGGA	GCTGTTTGG	TGGAAAATCT	GAAGAAAATG	GCAGGTATCA	CGGCTGCTGA	4560
ATTATATCAAG	GATGGGATGG	TTTAGGGCT	AGGAACAGGT	TCTACTGCCT	ATTATTTTGT	4620
CGAAGAAATC	GTCGTGCGAA	TCAAGGAAGA	AGGCTTGCAG	ATTACAGCTG	TGACGACTTC	4680

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TAGTGTGACC AGTAAACAGG CTGAAGGGCT CAATATCCCG CTCAGTCTA TTGACCAAGT	4740
AGACTTTGTTC GATGTGACAG TCGACGGGGC GGATGAAGTG GATAGTCAGT TTAATGGAAT	4800
CAAAGCGGT GGTGGTGCCC TTCTCATGGA AAAGGTGTTT GCAACACCAT CAAAAGAATA	4860
CATTGGGTG GTGGATGAAA GCAAGCTGGT CGAAAACTA GGTGCTTTTA AATTGCCAGT	4920
AGAACTGGTT CAGTATGGTG CAGAGCAGGT CTTTGTCTAT TTGGAACGAG CTGGCTACAA	4980
ACCAAGTTTC CGTGA AAAAG ACGCCCAACG TTTTGTGACC GATATGCAGA ATTTTATCAT	5040
TGACCTCGCC TTGGATGTCA TTGAARATCC AATTGCTTTT GGACAAGAAT TGGACCATGT	5100
CGTTGGTGT GTGGAGCATG GTTTATTCAA CCAATGGTG GATAAGGTAA TCGTTCGTGG	5160
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CTCGTGAAC TCCTCTAAG ACTGTAGCAG CTGAAGCAA TCCAATCGA TATGCAACA	5460
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AAATCGAAGA ATTCTCAGGA CGCAAGGTTA TTGCTGAAGC CAACAAACCT TATTGAGAA	5640
CGGCTGTTAT CTATGATTTT GGACCCAGTC AGATGGAAC TGGAGAGTTG ATTATCTATA	5700
CTTCAGCTGA CCGTGTGTTG CAGATTGCTG CCCACGAAGA CATTATTCCT TTGATGAAT	5760
TGTACCGTAT CTGTGAATAC GCTGTTTGA TTACCTTGA GCGTCTGCC CTTCCTGGTC	5820
GCATCATGCG TCGCCCTTAT GTAGGTGAAC CAGGTAACTT CACTGCTACG GCAAAACGTC	5880
GTGACTTGGC TGTATCTCCA TTTTCCCAA CTGTTTGA TAAATTGAAT GAGGCTGTA	5940
TGATATTTA TGCTGTGGT AAAATCAACG ATATCTTTAA CGGTGCTGGT ATCAACCATG	6000
ACATGGGTCA CAACAAGTCA AATAGTCATG GAATTGATAC ACTATTGAAG ACTATGGGAC	6060
TTGCTGAGTT TGA AAAAGGA TTCTCATTTCA CAACCTAGT TGACTTTGAT GCCCTTTACG	6120
GCCATCTGCG TAATGCTCAC GGTACCGTG ATTGCTTGA TGAGTTTGTAT GAACGCTTAC	6180
CTGAATTTAT CGCAGCTATG AGAGAGAATG ACCCTCTCTT GATTACTGCG GACCATGGAA	6240
ATGACCCAAC GTATGCAGGA ACGGATCACA CTCGGGAATA TATTCATTG TTGGCCTATA	6300
CGCTTCCTT TAAAGGAAT GGTCTCATTC CAGTAGGACA TTTTGAGAT ATTTGACGGA	6360
CTGTTCCTGA TAACTTTGGT GTGGAAACTG CTATGATTGG GGAAGTTTC TTAGATAAAT	6420

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TGCTATAAGA	TGACGCGCTA	TGCTTTGCTG	GTGAGAGGTA	TCAATGTTGG	TGCTAAGAAT	6480
AAGTTCGTCA	TGGCGGAGCT	TCTTCAAGAA	TTGACAAACT	TGGGACTTGA	AAAGGTTGAG	6540
AGCTACATCA	ATAGTGGCAA	TATTTTCTTT	ACTTCGATAG	ATTCCAAAGC	CCAATTGGTT	6600
GAAAGCTAG	AGACTTTCTT	TGCAGTCCAT	TATCCATTTA	TTTCAAGCTT	TTCTTTACTG	6660
AGTTCAGAGG	ACTTTGAGGC	GGAAGTTGAA	AATCTACCAG	CTTGGTGAGG	CAGAGACTTG	6720
GCACGAAAG	ATTTTCTCTT	TTACACTGAG	GTTTGGATG	TGGACCAAGT	CATCGCGACA	6780
GTGAAAGTT	TAGAGCTGAA	AGATGAAGTG	CTTTATTTTG	GAAAGCTTGG	GATTTTCTGG	6840
GGGAAATTTT	CTGAAGAATC	CTATTCTAAG	ACTGCCTATC	ATAAGTACTT	GCTGAAGGTG	6900
CCTTTCTACC	GCCACATTAC	TATTGTAAT	GCTAAAGCTT	TTGACAAAAT	TGCTCAAAATG	6960
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ACTTTCTCTGA	AAGAAAGGG	AATTGCAGCC	CCTGAGTTCC	GTCTAATCTT	TGGATCAGGA	7080
CTTGGAGAAT	TGGCAGAGA	AATCGAAAA	CCAGTTGTAG	TAGACTATGC	TGAGATTCCA	7140
AAC TGCGGCC	GTTCACAGT	AGTCGGTCAT	GCTGGTAAAT	TGCTATATGG	TGAAGCTGGA	7200
GGTCGCAAGG	TCTTGGCTCT	TCAAGGGCGT	TTCCATTCTT	ATGAAGGGAA	TCCTCTGGAA	7260
GTGGTGACTT	TCCAGTTCCG	TGTGATGAAA	GTCTTGGAT	GTGAAGGTGT	TATTGTAACC	7320
AATGCAGCTG	GCGGTATCGG	ATTGGTCTCT	GGTACCTTGA	TGGCTATCTC	AGACCATATC	7380
AACATGACGG	GGCAAAATCC	ATTGATGGGT	GAAAGCTTGG	ATGACTTTGG	CCCACGTTTC	7440
CCAGATATGT	CTAGGGCCCTA	CACACCAGAA	TACCGTGCCA	CTGCCCATGA	AGTGGCTAAA	7500
AAACTTAATG	TCAAGCTTGA	TGAAGGTGTC	TATATCGGAG	TACTGTGCTC	GACTTATGAA	7560
ACACCAGCAG	AAATTCGCTT	CTATAAGACA	CTGGGAGCAG	ATGCAGTTGG	TATGTCTAGC	7620
GTCTCTGAAG	TTATCTGGGC	AGCCCACCTC	GGCTTGAAAG	TTCTGGGAAT	TTTATGTATC	7680
ACTAATTTTG	CGGCCGTTT	CCAAGAGAA	CTCAATCACG	AAGAAGTTGT	AGAAGTGACT	7740
GAACGTGTTA	AAGGTGATTT	CAAAGGCTTG	CTTAAAGCGA	TTCTTGCTGA	ATTGTAAGAA	7800
AAAAGATTTA	AAAGGGGGAG	TGCCTCTGTT	TTTTTCAAGAT	TGACTGCCTA	TCCGATTAA	7860
AGAAGAACA	GAGGAATACT	ATGAGCTCTT	TCCTGTCTTT	ATAACTGAAA	GAAGCGGAAG	7920
AATAGGTATG	TCTGATCTGA	TAGCCAGCAT	TGTGAAAGAC	AAGATTCTAG	GACTACTAGCA	7980
TIAGCTTCCT	AGCCAAGCAG	ACTAGTATGA	TAAAGGAGGA	TGAGAAATGAA	TTGACTTTCT	8040
GAATTTCTCA	GTCTTATCAT	ATATAGCACA	ATGAGATTTC	GCTTGAGTCT	GCTTGTAAAT	8100
AAACGAAAG	AAAGATAAGA	AATATGAAA	ATTGGTCAAC	GAATTAATCG	CTTTGGCATA	8160
AAAAATTAAG	TATCGAGGTT	GTATCTGTGG	TAGTCGGCTT	TGATTTCTAG	CTCCAGCTGG	8220

AATTCAGGCC AATGAAGTAA AGCAAGATGT AACATCTGAA GTGCTAATAG GTCTGCTAGA	8280
TCTTAAGGAG GAATTGAAAG AGTCAGAAA TGATGCTCCA AAAC TAGAAA CTCTCTCTAG	8340
AGAGGAGCCA AGACTAGCTC CTCAAAAGCT TCCGGAAGCA AGTGAAGTTC TTGAAAAACA	8400
AAGGGAAGAG TCAAAAGTAG AGATAACATA ACCAGCTCAA GCGGATGATA TCCGCAAGGT	8460
TGTTGGGGAA TTAGCCAAGG ATATAAGTAT TACTAAGTGT TATATGACAG GTCAATCTCT	8520
TGGATGTTAC CTAGCTCAGA TTGCAGCGGT TGAAGCTTAC CAAAAATATC CTGATTTTTA	8580
TAACCATGTA TTGAGGAAAG TGACAACTTT CAGTGCTCCT AAAGTGATTA CTTCAGAGA	8640
TGTTTGGGAT GCTAAGAATG GTTCTGGGA TGTTGGTTTG GAAAGTCGTA AATTAGCTGT	8700
TAGTGGAAAA ATTAAGCATT ATGTGGTTGA TAATGACAAT GTTGTGACTC CCTTGATCTA	8760
TAATAATCGT GATATTGTTA CATTACAGG TAATTCACGC TTAAACACC GTTCTCGTGG	8820
CTATTTTGAA AGTCCAATGA ATGATATTCG TAACTTTAAAT ATTGGTAAAC AAGTACCTT	8880
GGATAAACAT GGTATTCGTG ATCCGAAATT GGATAAAGTG CGATCTTTA AGAAACAGGC	8940
TCTGCCTCGA TCTTCTAGTC AACCAAGCGC TGAACCAATG GAAATATTCG CCTCAGGAAA	9000
ACAGGTACTT CAAAGTTCGA CAGCTTTCGG AGGAGATGCT AGAAGAGCTG TGGATGGCAA	9060
ACTCGATGGT AACTATGGTC ACAATTCCTG CACTCATATA AACTTCCAA CTAGCCCTTG	9120
GTGGCAAGTA GATTTGCTTA AAGAAGAAAC CATTGCGCAA ATCAATATTT ACAACCGAAC	9180
AGACACTGCC CAGGATAGAT TGGCAAACTT TGATGTCATT CTTTTAGACA GTTCTGTTAA	9240
AGAAATTGAG TGA AAAACGTA TAACATCTCC TAAAGATGTG TCAGCACAAA TTACGATTAA	9300
CCATAAAAAA GCGCGCTATG TTGGGATTGA GCTAGAAGGC TATAATGCC TCAGTCTTGC	9360
AGAAGTTGAA GTTTTCTGCT TTATAGCTAC GAATGCTGAA ACGCGACAC AAGTTCTTAA	9420
GCCAGTTCAA CCAATCAGTC AGACTCTCTG GAAGGATAAA ACATTGACAA TTCAACACAG	9480
TGGAGCTTAC ATTGCCCGCT ACTCCATAAC TTGGGAAGAA GTTCCAGTAG ATAAAGATGG	9540
AAACCAAGTT GTTCTGATGC ATTCTTGGGA AGGAAGCGGT CGCAACCAGA CTGACGTTTT	9600
TGTCCTCAAC CTCCCAATCA AAGAAAATAT GAGAAATCTG CGAGTTAAGA TTGAGAAAAA	9660
GACGGGCCTA CTATGGATA GATGGCAAC AATCTATGAA AACAGACCAA TTTTAGCTCA	9720
ACCCACCGT AAAATTACCC ATTGGGGTAC GACATTGAAT TCCAAGTGA GTGACGATGA	9780
TGTCCTGTAA TCTGATGTTA GAATGACAGT TAGTTTGTCT AGTTTATTAAG AAAGTACTAC	9840
CTGAGCTTGA ATAGGACTCA GGTAGCTCTC TATGAAAGAA CAAAATTAAT ACTCAATGAA	9900
AATCAAGAG CAAACTAAGA AACTAGCCGC AGGTTGCTCA AAGCACTCCT TTGAGGTTGT	9950

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AGATAAGACT GACGAAGTCA GTACATATA TAATCCAAAG CGACGTTGAC GTGGTTTGAA	10020
GAGATTTTCG AAGAGTATAA ACAGAAAGGT AGAGCGCGTG TCTTAATTTC AACACGAGTA	10080
GAJJACTTTT CTAAAAACAA AAACGAAGG ATGGGTAAAC TGATTCGCT GAACGAATA	10140
CGGCGACTC TCCCTTAAT CAAAATTAAG AAAGGAATTG ACCCCACCTT AAAAGTAGTG	10200
GGAAAAAGAT AGTTGACTCA GCGAGCATCG CTCACGTGCG CCAACTCCTA TTTTCCCTTC	10260
GCTTTTGTAT GGGTTTGGTA TCTTCTCAA TATAAAATAT AAAATAAGA AAGGTAGAGC	10320
GTGTGTTTG ATTTGAACAC GAGCGGAAAA CTCGGAAAT AGATAATCTG ACTGAAAAAT	10380
CAAGATTCT COTCAGGTC CTAATTTTCA CTCGTTTCT TCTCGCTCTT TGTATCATAA	10440
ATTATGTCTA TCCATATTGC TGCTCAGCAG GGTGAAATG CTGATAAAAT TCTTCTTCTT	10500
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AACGAAGTC GTAACATGTT TGGTACACT GGTACTTACA AGGCTCACTG TGTATCTGTC	10620
ATGGGAACCT GATGGGAAT GCCATCTATT TCGATTATT CGCGTGAGTT AATCGTAGAC	10680
TACGCTGTGA AGAAATTGAT TCGGTGGGA ACTGCAGGTT CTTTGAATGA AGAGGTTTAT	10740
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TACTCAAAAT ACTTTGAAAA GAATATCGAG CTTCGTAAAT GGGGAATCAA GCCTGTGGAA	10980
ATGGAAGCAG CAGCTCTTTA CTATCTTGCT GCCCAATACC ATGTTGATGC GCTAGCTATC	11040
ATGACCAATC CTGATAGCTT GGTCAATCCA GACGAAGACA CAACTGCAGA AGAACOTCAA	11100
AATACCTTCA CTGATATGAT GAAGGTGGT TTGGAAACCT TGATTGCAGA ATAAATTATAG	11160
CCAAAAAGGG CTCCTTTGTC AACTGTAGTG GGTGAAAAA AAGCTAAGCT TGAGAAAAGGA	11220
CAAAATTCGT CCTTCTTTT TTGATATCA GGGCGATAAA AATCCGTTTT TTGAAGTTTT	11280
CAAAATTCGG AAAACCAAAG GCATTGCGCT TGATAAGTTT GATGAGATTA TTGGTCGCTT	11340
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GAAAGGTTTT AAGACAGTC TGA AAAAGAG GATGAACCTT CTTCAAGTTG TCCTCAATGA	11460
GTCCGAAAAA TTTTCTCAGG TCTTTGTTCT GAAAGTGAAA AAGTAAGAGT TGATAGATAT	11520
GATAGTGGTG TTTCAAGTCT TCTGAATAGC TTAAAACTTT GTCAAGAATT TCTTTATTTC	11580
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GATTCTAAT TTGAACAGA AAACGACTCA TGGCACGGCT GAGATGTTGG ATAAATATGA	11760

AACGATCTAG AACGATTTTA GCACACGGAA AAAGCTGTTT AGCCAAGTCA TAGTAAGGAC	11820
TAAACATATC CATCGTAATG ATTTTCACTT GACAACGAAC GGCTCTATCG TAGCGAAGAA	11880
AGTGATTTCG GATGACAGCT TGTGTTCTGC CTTCAAGAAC AGTGATAATA TTAAGATTAT	11940
CAAAATCTTG CGCAATGAAA CTCATCTTTC CCTTACTGAA GGCATACTCA TCCCAAGACA	12000
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GAGTCTCAGC AACCATCAIT TTTGAAAGT GATAGCACTT GAAACGGCCT TTTCTAAGGA	12240
GAATTCCTAG AGGCATACCA GTTGTTCGTA GGTAAAGGAT CTTAGACGGT TTTTGAAGT	12300
CATTTTCTT CATTAGACTT CCACAATCAG GGCAAGATGG AGCCTCATAA TCCAGCTTAG	12360
CGATAATTC TTTGTGGGTA TCCATATGTA TGATATCTAG AATCTTGATG TTTGGGTCTT	12420
TAATATCGAG CAGTTTGTG ATAAATGTA ATTGTTCCAT ATGATTTCTT CTAATGAGTT	12480
GTTTTGTCCG TTTTCATTAT AGGTCATATG GGACTTTTT TCTACACAAA AATAGGCTCC	12540
ATAATATCTA TAGTGAGATT ACCCACTACA AATATTATAG AGCCCAAAAA GGAAGCCCTT	12600
TATGAATTGT AGGACTTCCT TTTCTTATCC AGAAATTGAT CTAGCTCTCT CTGATTTGCA	12660
AGAAATGTA CTTTATGTGA ATATTCTTGG CAAAGTTTTT GGTAAATTTT TTTTGTAGTT	12720
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AGTTGACCTA CCAGAACCAG AATATCCGAT AATTGCGATT TTTACTTTCT ACCTTTTCTT	13140
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GACGAGCTTT ATCGCGGCTT GCTTTGTTTT TGTGAATCAA ACCTTTAGTT TCTGCTTTAT	13260
CGATAGCTGA GCTAGCAGCA CGGAAAGTT CTTGAGATGG GTTTGCTTCG AAGCTTTTGA	13320
TAGCAGTAGC CATAGCTGAT TTTTGAGCTG AGTTCCTTTC GATTCGTCTA ACGTTCAATT	13380
CAGCGCGTTT GATAGCTGAT TTAATGTTTG CCAATGGTCT TACCTCCATA TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:

890

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8512 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTCFA	AAAACAGAT	ACTAGTCTAT	CAAAAGTAGG	AAAGGGTTTC	AAGAAATTTG	60
ATTGGAAATT	TTTGTAAAT	CATAGAACTA	TTAGCTAATC	CCTAGTATTG	AAAAGACTGG	120
ATAGCTCTTT	TGAGGTGATC	TGTAAACTA	TTTCTCTGGT	CAAGTTGGAC	ATAGACTTCC	180
ACCAGACAGG	ATCTAAAGTT	GGAAATTTG	TAAAAATCCT	CCCTTTCTTC	TATCGGAAAA	240
TCAACAGTTT	TTATCCAAGA	AGTACTTGT	TCTTGCTCCA	ACTTCCCTTG	TAAATAGGT	300
TCATAGATCA	CTCTTGCTAA	ACGCCAATCC	TCATCATCTG	TAAAGCGAAT	CGACATCTTT	360
TTAAATAGTT	GGCCAAGTAT	ATCAAACTCT	TCATGAATC	TGTTTTTAGG	AAAGTCTGGA	420
TGACAAACCA	CCTCTGTCTG	TAAATCGGCT	CCATGTGCAA	AAGCGTGAAC	CCAAACCATC	480
TGACTTGAGA	AACCCCTTGT	ATCCTTTTCT	TTTGAAGAT	AGTGCAAGCC	TTGATTTAAA	540
AGGACATTAC	GAATTTCTGG	AGAAGGATTT	CCCAATGAT	CAAAACAACA	CTGGATTTCT	600
TCCTGGTTAT	AATTTGGTTT	TTCTTCTGCT	ATTTTCTTTA	GTAATCTCTG	ATACATGGTC	660
AATACCTCTA	CATTCTTAGC	AATGTTCAA	AAAGCAGTCT	TAAATGACT	CATATTGAA	720
TTCTCAATTA	AATACAAATCT	GATATAAAAT	GAGGTAAATA	ACTATCAATA	CCAGTTCTAC	780
AGTAAGTTCA	AATTTAACAT	CACGACCTTC	AACGACATTT	TTGAAATAG	CTACAACATA	840
GACAAATAGA	ATGACGCTTA	ACAAGCCCAT	AAACATCAAT	CTAAAAAATT	TTCTATTTC	900
CCTACTCTCC	CAACTCAGCA	CTATAGGAGA	TAACTCTGGT	AACTGTGTCA	GACAAGAATT	960
GGATGGTATC	ACCGAGTGGT	TTCTCTGTTG	AAATATCAGC	ACCGATAATC	ATGGCTGACT	1020
CAAGTGGTGT	CTTGCTACCA	CCTGATTGGA	GGAGATTGAG	CCAGTCTTCA	GCTCCAGTTT	1080
CAGATGTTT	TAGATGAAGG	TAACCCAGC	TGAGATTAA	TAGTCTGCT	GAGTAAGTGT	1140
AATATACAAA	GCCCATATAG	TAGTGAGCTT	GGCGCATCCA	AGTCAGAGTT	GCATCATCGT	1200
CAATTTCAAT	AGCATCTCCC	CAGAAATCCG	TCAAACTTTC	CTTCAATGAG	CTGTTGAGCT	1260
TGCTTGCTCC	AAAGGCTCCC	CCTTCTTCAA	TCAATGTATA	CACCTTACGC	TGGAAGGCGG	1320
CTTCCAAGAG	GTTGGTGATA	AAGTTATGGA	AGTAGGTGTC	TGCTAAGCGA	TGAGCCAGAG	1380
CGAAGCGTTT	TTGACGTGGG	TCATTAGACT	GGTTCTCCAA	GTAATCACTG	AGTAGCAATT	1440
CATTGAAGGT	TGACGGTGCT	TCAACATAGT	AGGTGACAT	ATGGGCATTT	AAGTAACTTT	1500

GATGATTGTC	TGAAAAGATG	AATTGACCAG	AATGCCCGAT	TTCATGAATC	AAGGTATAGA	1560
CATCGCTCAA	ACGGCCTGTC	CAGCTCATGA	GTACATAAAG	GTGTACGGGA	TATGGGTCCG	1620
CCGCATAACC	ACCGGAATCC	TTGCCACTGT	TAGCAGCAAA	GTCCACCCAG	CGCTCTTCTT	1680
GTTAACGAGC	AATTTCTCTG	CAATATTCTT	GGCCCAAAGG	TTCTACCGAC	TTCATGACCA	1740
AATCATAGGC	ATCGTCAATA	GTCACTTCAG	GATTCAGGGC	GCTGTCCAAG	TCCAATTTCG	1800
AGTCTGCAAA	GGTCATCTTT	TCAAGACCAT	TTACCTTGGC	AACATGCTTG	AGGTATCTCT	1860
GAGCGACTGG	TGCAAAAGTC	TTCATGATGA	GGTCAATCTG	GGGTCAAAAC	ATGACACGGT	1920
CCACTTCTTG	TTCAAGTAGA	AGATAGTCAA	AGACAGAGTC	GTATCCCTTC	ATATCAGCCA	1980
AGAGTTTTTC	AGACTTGACC	TGAGCCAGAT	AGGCTGCTGC	AGCCGTATTT	TGGTGCCTAC	2040
GAAGTCCCTC	TGAGAAAGAA	CGGAAGGATT	TCTCAGCAAC	CTCAGCATCC	TCATGGTTTT	2100
GGTAGAAATT	CTCATAGGTC	ACAAAGCTGT	TTTTGTAGGT	CTTGCCATGG	GCTTCAAAGT	2160
CAGCCATTTT	AAAATCCCCA	GCTCGCATCT	TAGTATAAAT	GTCTGCGGGA	CTGTAGAAAA	2220
CTTCACCGAG	ATTGTCTAAG	GCCTTCTCCA	CATCTGCCCC	TAAGTAGTGG	GCTTTTTTGA	2280
TTTTAGCCCTG	ACGAATGGCA	GCTGTTAAAT	GTGGCAATTT	ACCCAAACGG	TCCAAGACTT	2340
CTTCATCTGC	TGCCACCAAG	GCAATGTCAA	AGAAGGTCAA	GGCTACGCTG	GCATCTGTTT	2400
CAAAATCCAT	CCCAGCTTGG	GCAATATTGG	CAAAATGCTC	ATTGTATATG	TCCGTGCTCT	2460
GAGGCATAAA	ACCATAGTTG	CCAATATGGC	TCATCTGAAT	GTAGATCTGT	TCCAATTCCG	2520
CAAAGGCCCT	CTCGAAATCC	TCAAAAGTGT	GAAGATTGCC	CTGTAAATCA	CGGCTAAACT	2580
GGTTGATGTC	TTCCGGAGCT	TTCTCGATTG	CACGCAAGAA	ATCCTCACGG	TCTTGTATAT	2640
GGGCTGTAA	GTCCACAGAT	TCCTTCTCTG	GAAATTTCTGA	ACGGTGTATT	TGTTCCATTT	2700
TCTTCTCTTT	ATTTCTCTAA	TTCTACTAAA	ACACTAAGGG	CTGATAAAGC	GTAAGACGGT	2760
GCTGTTTCTG	CTCGCAAAAT	ACGAGGACCT	AGGCTTGCCA	AAACGGCTCC	TTTAGCTTCA	2820
AAACTTTTGA	TTTCTGACGG	TGAGAGACCG	CTTCTGTGAC	CAAAAGTAAA	GAGCAGTTTG	2880
GCTCTGTTTT	CAAGACAGGT	GACTGCTTGC	AGAAGCGCAG	CGGCTTCTCC	TTCTTTAGCT	2940
GATTCCTTCAT	AGGCTACTAT	GATAGAGTCA	AACTGGTCCA	GCTGAGCTAG	AAAATCTGCT	3000
TTTTTCTCGA	AAAGTTTAAT	ACTTGGTACA	ATATTACGCT	TGCTTTGCTC	GGCTGCTCCA	3060
AGGGCAATTT	TTTCTAGTTT	TTCAACTTTT	TTACCCAATT	TCTTGCCATC	CCACTTGGCA	3120
ACTGACCAGT	CTCGACGAAA	GGCCAGATTT	TGGCTAGCCC	CCAGTTGCGT	TACTTTTTGA	3180
GCGATGAAC	CCAGCTTGTG	TCCCTTGGGA	AATCCAGATG	CGATGCTCAC	TTGAGCTGGT	3240

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AGTTCCACAT TGTCATTAA TTCTTGGACC AACTCAAAC	GACGATTTC CATATCCAGC	3300
ACGCGGCCA AGCGCTTGAT GCCATCATCA AAGACTAAGG	TAACCTCATC CTCCTCTTC	3360
AAGCGCATAA CCTGAAACAT ATGCTTACTG GTTTCCTTGT	CCTCGATAGT GACAGGAGAG	3420
ATAGCACTGC CTTTACGAA ATACTGCTGC ATGCTAGCCT	CCAATCACAC CAGAGATATC	3480
CTTGGTTTTC TTAAAGACAC AGGTATTCCA TTCCCTTGA	ACCATGTGAG TTTCGAGGAA	3540
AAATCCAGCT GACTCAGCCG ACTGGGCGAC CATGTCCAAC	TTGTCTTGA TAATGCCACT	3600
CATGATCAGG TAGCCTTCAT CCTTTACCAA GCGTAAGCA	TGCTCTATTA GATGAATGAG	3660
GATATCCGCC AAGATATTAG CCACAATCAC ATCTGCCTCA	ATTTCCACAC CCTTAAGCAA	3720
ATCTCCAGCC GCTACATGGA TATTTTCCAT GCGAGGTTG	AGCTCAATAT TTTCCTGAGC	3780
CACACGAACC GCCACATCAT CCAGGTCATA GCGAAAAAT	TCTTTAGCCC CCAGAAGCGA	3840
GCTGGCAATA GAGAGAACC CTGAACCAAT CCCACATCT	AGCACCGTTT CGCCACCAAG	3900
AAGAACTGT TCCAAGGCAA AAGGCTCAT CTGGTGTAGT	GGGTGGGTTT CAGTACCAA	3960
AGCCATGCCA GGATCCAGCT TGATAATCAT TTCCCCGCA	GTCCGCTCAT AGTCTGTCCA	4020
AGAGGGAACG ATGGTCAAAAT CATGAGTGAT ACGAGCAGT	TCATAGTATT TCTTCCAGTT	4080
GTCTGCCAG TCTTCTCAG CCAAGGCAGT CGTACTATT	TTTAACCTCT CCAATCCAT	4140
AAAATCTGTC AATTCTGCTA GACGAGCCTG CAAATCCGCC	TCAACCACTG TCACATCCAC	4200
CGTGTACGG TAGTAGGCTG TCACTACGAT TTCTTCTTGC	TGCTCCACCT CTGGAAAAAT	4260
CTCTCCAAAG CGGTCCACAT TTCCACATA GTCCATACTG	TCTTCGATTG CGACTCCTTG	4320
CGCTCCAGC TCAATCAAGA GATTGAAAC CACTCTCTCT	CCCTCACGCT TCACGTAAAC	4380
TTTTAATCT TGCCATGTTT CCATTATTAA TACCAAGGCC	GTAAAACACA AAACAAAAAT	4440
AGGAAATCT CTGAAGACGC TTGTGTCTAA GAGAAGTTTA	TCTTTTGGC ACAGTGTTTA	4500
GGCGGGTTC AGTTTAGAAA TGTAACGAA CCATCCTTTC	TAATCACTTA CTTTAAATA	4560
ATCTTTTAAT CTCTCTGCA ACTGAGGCAC AACTTGACTG	GAACTAAGAA ATTCTCTAAC	4620
ATTTCATCAGC TGATAGCCCT GTCTTCTCAT TCCGAAGAT	ATATTGTCAA ATTGTCTTG	4680
TCTTAGCTGA CCAACCAATA AGACCGATT CTGCTCTTFA	AAATTAAGC TAGGATAAAT	4740
CTTGCTCCAA AGCAGACAGT CTTCACTTAA ATGAATTCCC	AGTTCTCAT AAATTCACG	4800
CCGAGCGCAT TCAAAAGGCG TTTCGTCCCC TTCAAGGCCA	CCACCTGGCA GTTCCACAT	4860
ATTGCCCCAG GGAATACTTG CCTTATCATC GCGTAAGATA	GTCAAAAGCT TATCCCCACA	4920
AAACAAAGCA ATCTTGCAAC CTGTGAAATC AGAAATTTCT	AGTTCACTCT TCAGTTCTCT	4980
CTAACATTTC CTTTCCAGC TCGGCTAACC AGTTTTTATA	ATATCTTTTC TCATCCCTCA	5040

ACATTCGACT ACTATCCATT TTCGTCTAG CAATCTTGAG AGCCTTACGA GTTCGATCTA	5100
CATCTTTCTT CACCTTTAAT TGATACCAGG CTTGTATCAC TTGAAGATTG GACAGTTTGA	5160
GAGACAGAAA CGATTTGACC TGTGGAATAC TAGCATATTG CTCGCTTGC TCAAAATCTC	5220
CTTCCACAA GGCATATGA AGCAGGGATA GTTGGGCAAC TGCTGTCATC ATCCGAGTAG	5280
TTGCTCTCTC AAGTAATGCT TGAAGTGTCT GTTTAGCTAC TTCTTCCTTC CCTTCCAAAA	5340
TGGAACTTC ACCTTGACATA CTAATACAC CATCCGCAAA ACTCCCTCGT GCATCCCTCAG	5400
GAACTGCTTG AACAAAGTCT TTCAAATCAT ATTCTTGAGG AGCTAGCAGG GTCTGGGCGAG	5460
AATGTCTCAA TACCAGGTAG GCGTATTGG TATTTTCAGG GTGTTGTAGT AATCCCAAA	5520
TTTTTCTCC ATCGGTGATG TCGACTGGCA AATGTATAT TAGGAAGAAA GATAAATTAA	5580
GAAAAATCCA AGTCCCTGCA AAATACCAGC TTCTTGTCAA AAATCCAAC AATATCGCCA	5640
ATAATATCAA GCGGAGATGA ACCATCAAGC CTCTGAAAG CATCAGGATG ATCTTTTGAT	5700
CGCTTCTATC CTCTTTTAA CCAATGTATT GAGCACCAAC ATTTTTCAGA ATGGCTGTTT	5760
TACTAAGATG AAACCTGCCT GACTTTTTGG TCAAAATAAA ATGCTCTAAT CCAAAAGCCA	5820
CCAGCCGATA GCCTGTCAAG TAGCCACAAA AAGCATGACC CAGCTCATGA AGAATAAAGA	5880
TTAAATATCA GCTTAGAAGA GCGAAGGCAT AACCAGAAAGT AAAGGCTAAA ACTCGGGAAT	5940
ACCCCAATCT TGCMAATGCG ATTGTTCAC AAGCAAAAGC TAGCATAATA AAGACAACAG	6000
CTAGACATA AACCAGATA GTCCCAATTT TCTTCATAAC ACCTCCAACC AACTCCTAGT	6060
ATCTTGATA AGGATAAAAT TCTCCCTTTT CCAAGCCAAT TTTTCTTCT TCAAGACTT	6120
CTTGCTTCCA TTCCATGACA AATTCTCTCT CTCTCGGTC TTCCAAAAG TCCATGAGGA	6180
CATCTAGCCC AACCTCAGCA GTATCTTTAA GGAAAAGCGC AAATAAGCT AAAAATTCAC	6240
GGGAAATCC TTTTTAGGC AGGTAAGGAA TAACAGTCAA ATAGTCTTCC TCAATTGACTG	6300
TTGACTTGGC AGGATTGTAG AAAAGGACCG CTCTCTCAA AGAATGTCA TCTGATGAAA	6360
CCTCTCCGTC TTCATCCACC ATCTCCACAC CGCAGCATTT TGCGCTTCCA ATAGAAAAT	6420
CACCTCTACC GCATGGTGC GTTTGTCCCA GCTAAATCA AAGTCAAGG GAAAGTTCTT	6480
GTCCAACTCT TCCTCTAAAA TATCTAAAA TCCGATGTTT GCCATTTTGT CCTTTTCTA	6540
TGCGACTCTT TAATCGCCCC GATTGCTCGG AAATATGCTA AAATAGATAC TACCATCTTA	6600
CCACAAATTT ATTTTATGTC CTAATTATAC CATATTACCT CATTTAAACC CTGATATCA	6660
GTGATTTTCT TAAAGTCTG ATTTCTTCAT TTCTCATAAA AATCAATATA AAAAGCCCTC	6720
GAAAGGGCTA ATAAATCTAT AAAATCAATA GCGAGTAAAC TAGCACAAAT GGACGTGCTT	6780

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TTTTATGTGAC TATTACCACG ATACCACGCT TAATCTTAGG CTTGAACCTT CTTATCTGCA 6840
 ATAGCGTCTG TCAAAGTCTG AGAAAAGTTA AGCCCCATTT CTGCTCCCAA CTTATCTGCC 6900
 CATTTTGGTA TGGTCAAAGT CTTTTTAATG GGTTCCTGAC TTCCTAGGTA TTCTGATACA 6950
 TCAACAGATA CCATAGAAAT AAAAGATTTA TCAAGGTCAT AGGTTGACAC GAAATCTTCA 7020
 TCATCTTTAA AAGGATCATT ATCAAATTAA GACAAAGCTAT TGAATATCTGA TGGCTGAGGT 7080
 AACTCTCCAT CACTCTCTAT CAAATCTGCA ACAGTTATCC CTAGCCACTC CGACCCCATTA 7140
 GCCAAGCCT CAGAAATCCC CTCTCCTTGT GTAGCTGAGT ATTCAAATC TGGGAATGG 7200
 ACAAATAAG TCGCTCTGT TCGCTCTGT TCGTCATAAT AAAATAAAG TGGATACGTA 7260
 ACTAACATTT CACTACTCTC ATATCAAAAA GCAGGGACTG AATTTTACAA CCCAGCTTGC 7320
 TTCTTATACC CTCTTTCAGT GTACTTATTC AGCTACCCAT GAAGGATTCT GATAGGTCTT 7380
 TCCCCTTGCT TTTCCATTTT AATATGGGAG CCTTTACCGC CTCTAGTCTT TATCCAACCA 7440
 TGGGCCCTAA GGAGTTTAA CACTCTCTTT TGTGTATAG GCATAGCGCT TTTACTCTCT 7500
 GACAACACCA TTATACACAG TGTTACACGT ATTGTAAAGG AGTGATACTT ATTATTTCTAT 7560
 TATACATAAA AGCCCCTAGA TGTGGTTCTA AGGGAAGCCA ATTATTCAT ACCTATTTTT 7620
 CTAATGAGTA GTAAAAACTG CTCTCTTATC GAGCAATCA TCATCTGTAT AGTCAATTTT 7680
 AAAAGTATCT CGATCTAAGA CAGATTGAGG CGGAGTTGAA TGAATCATAG GAACACTGCG 7740
 TACTCTATAT TTTTATCTC CAATTTTAC AAACGTATAC TCTTCGAAAA TCAAAATCAA 7800
 ACCACGTCAA COTCGCCTTA CGTACTCAA GTACAGGCTG CGGCTAGTTT CCTAGTTTGC 7860
 TCTTTTATTT TCATTGAGTA TGATTAACTC TCAAGTCTTC GAAATCAGGA TTTTCAACAG 7920
 TTATTACAAG GAGGCGATTT ACTACTTCAA AAACATCAAT TATTTTATTT TTATATTTTT 7980
 TTCAACCCAT TATTAGAATG AACTTCTTGG TAAGCAAAAT CAAGTTTAGA TTTAATGTTT 8040
 TCGTACAAAT CTAATAATCT TTTTGGAGTA TCTTCCCGA AGAAAAGTTT TCTTTTCCCT 8100
 GAAATAACTT GATCACTAAG AATCCAATGA CGAATTTGTT TTGTAAAAAT CAAAAATTCG 8160
 TGACTTGGTA GTTCCATCAT TTCCATTGCT TATCACTCT CTTTTCATTA TAGTTCATAC 8220
 AATGACATTC AGCAATATTA TTTCTCAAGT CAGCACTTCC ACTCTTTTAG GCTCAACTAT 8280
 CCTATTTTGA GCTTTAAGGA AAATCAAATC TCTCATGCTG ATACCTCTCC TCAATTAAT 8340
 AAATAGTAAA AAGAGTTCTA TCTCACTCCC TGATTATTAC AAUACCATG AAATATCACA 8400
 ACTAATAGGC TAGAATGGAC ATAGTAAGAT ATAGTAGATG AGTCAATCTA CTCAAATCCA 8460
 CGTTAGAAAG GACTGCTATG CCAGACAATC TCGCCGTTG CATGCGCCCG 8512

(2) INFORMATION FOR SEQ ID NO: 130:

895

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2869 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTGAGTCT CTGCAATC TTGTCGCGT TCTTCCTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCA GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAGCA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATTkTCTTTT TTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAGAAGC TGACAGCCAT TCGTCCGCCA	300
ACAGGCTTTA CTCTGAGAT TCGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGGTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAAC TAAGAGTCA AATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGCTG CTATTGTCCG TGCTGTCAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAAACTGTA CCATTCAATG GCTAGCACA GGTGAAAAAG TATCAGAAC CATCCTCATC	600
CACCAACTT CTTGCCATGT CTATAGGAT GCAGGAAGT CAGAACGCAC GCAAGCAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTAAAAAG AAACCTCGTC TCTTGGCATT	720
GAGGTGGTG ATTTTATCAG TTTTGACCCA CGAAGTGTG TGACAGAGAC AGGTTTTATC	780
AAGTCTCGCC ATTTGATGA CAGGTCAAT GCGGCGATT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCGTA ACAACTCATT TGCTTTTTTC AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CCTGCTCAGG TAGTAGAATA TCTGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAAGCA ACAGACGAAT ATACAGTGT TATCTGTGTC	1020
AAGATGCTT CTGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTIAA GCTGGATATC TATCCATTTT ATGGTTCGGA CGTCTCAGC	1140
GCTATGTCTG CAGGGGCAGA AGTCAACAC GCCCTTCTCG GTGCTGGTAT AGAGTCTAGC	1200
CATTCTCTAT AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTGATGCT	1260
TATCTTAAGA GCACGTGCT GGAATAATAT GTGCCTTATT TGTCAAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAATTCCTT ACTTTGTCAA AGAGTTGGA ACAGGCTATC TTTGGTGTG	1380
AGACCACAG TATTTGAAG GCTATAGTCT CTTTCTAGCC AAGGAGCATC TCAGCGAATT	1440

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GCACCATTTG AAAAGGAGA CAAGACTCCG TTTTCTAGAA GAAATGAGTT TAGTCCAAGA	1500
GGCAGTTGCC AAGGCCCTTG CTGCTGAGAA AATGAATATC GAATGCTAG GAAATGGCGA	1560
TGCTCATCTT CATTTGCCATC TGTTCACAG ACGGACAGGT GATATGAATG GTCATGGTCT	1620
CAAGGGTCGT GGCACAGTCT GGTGGGTTC CTTTGAAGAA ATGACAGCAG AACCTGCCA	1680
AGCAAAACCG GATGAGATTA AAAGATTAGT CAAACGTTTA TGCTCAGAAG TAGATAAAGT	1740
ATTAGAAATA AAGGAGTAGA AATGAAGAAA AGATACTAG TCTTGACAGC TTTGCTAGCC	1800
TTGAGTCTAG CAGCTTTGTC ACAAGAAAAA ACAAAAAATG AAGATGGAGA AACTAAGACA	1860
GAACAGACAG CCAAGCTGA TGGAAACAGT GGTAGTAGT CTCAGGAGC TGCCAGAAAG	1920
AAAGCAGAAG TGGTCAATA AGGTGATTAC TACAGCATTC AAGGGAAATA CGATGAAATC	1980
ATCGTAGCCA ACAACACTA TCCATTGTCT AAAGACTATA ATCCAGGGGA AAATCCAACA	2040
GCCAGGCGAG AGTTGGTCAA ACTCATCAAA GCGATGCAAG AGGCAGGTTT CCCTATTAGT	2100
GATCATTTACA GTGGTTTTAG AAGTTATGAA ACTCAGACCA AGCTCTATCA AGATTATGTC	2160
AACCAAGATG GAAAGGCAGC AGCTGACCAT TACTCTGCC GTCTCTGCTA TAGCGAACAC	2220
CAGACAGGCT TGCCCTTTGA TGTGATTGGG ACTGATGGTG ATTTGGTGAC AGAAGMAAAA	2280
GCAGCCCAAT GGCTCTTGA TCATGCAGCT GATTATGGCT TTGTTGTCCG TTATCTCAAA	2340
GGCAAGGAAA AGGAAACAGG CTATATGGCT GAAGAATGGC ACCTCGCTTA TGTAGGAAAA	2400
GAAGCTAAAG AAATTGCTGC AAGTGGTCTC AGTTTGAAG AATACTATGG CTTTGAAGGC	2460
GGAGACTACG TCGATTAAAT CTCTTCGAAA ATCTCTTCAA ACCACGTCAG CGTCGCCTTA	2520
CCTACTGACT GCGTCGGTTC TATTCACAA CTTCAAAACAG TGTTTGTAGT CGATTCTGCA	2580
GTTTTATCTG CAACCTCAAA GCTGTACTTT GAGCAstGCG GCTAGCTTCC TAGTTTGCTC	2640
TTTGATTTTC ATTGAGTACA AAAAGTAAAC TTTTCTCTTG CAATTCCAGA TAAATAGTGT	2700
ATAATGGATG GGTATGTGAA AAACATACTT GTGGGAGGTA AAAATCTCTA ATTACCGCCA	2760
AAACCACAAA GGAGGATTTA AAAATGGCTA AAAAAGTCGA AAAACTTGTA AAATTGCAAA	2820
TCCTGCTGG TAAAGCTACA CCAGCTCCAC CGGTTGGACC TGCTCTTGG	2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:

CTGAATCCCT TATAGGAGTC CAGTAACTTT TTAGCCTCTA CTTTGCCTTC ATAGGCAGCT	60
TCAACATCAT TAAAAAAGA ATGCACTGAA GCAAGTCTCT CAGTGCTCCA CGACAAATCT	120
AGTGGGTAACT TACTACTGTT GTTCATTAAC TAATACCAGC TCTCATCTCT GCTTCTTTTA	180
GTTCTTGCTT ACAGTAACTA CGAGGGAGAA AAGCAGCAAT CTCATCTTCA TTAAACCGA	240
TTTGCAATAG CTTGGCATCA ATATAAATTG GACGACGCAA AAGACTAGGA TACTGCTCAA	300
TCAATGAAG CAATTCOGAT ACCGAAATAC TCTCTACATC AATATTCAAT TTTTGAAGAA	360
TTTTTGAACG AGTTGAAATG ATGTCATCAG TACCATTTTC GGTCAAGGAA AGGATGTGTT	420
GCAATCTTTT TCTTGTTAAA GGAAGTGGTCA TAATATTGTG TTCCACAAAG GGAAGCTATG	480
TTTTTCTAAC CAGGCTTAG CTTTACGACA TGATGTACAG CTCGGTGATA GAAATAGTGT	540
AATCATGCTT TTCTCTCTTT ATCTATACTT TGCTACTTCT ATTATACAAA AAAATAAAGC	600
GCTTGACTAG GGATTTTATG AAAAAAGCC TATTTTTTCA AGAAAAATAG GCTTTTTCG	660
AACGATTCAC ACAATGGAT TTGGTTAATT CACTCTTAAC GATGGTTTTA AAGGATATAT	720
ATTTTTATAT ATGTAAATTA AAAACATCTT TCCTTTCACT TCCTAGACT TTTCAAGATC	780
AGATAGCCAA AGAAGTTTTT ATAGAGGGCA AAAAAAGCA GGAAGGCTG AAGAAAGAG	840
GTCTCTGGCA AATCATTAAT AACAGGATCC TTGGCTGGAT CAAAAAGCCA GGTATCATCT	900
CCCAAGAA GAATTTATG GAAAAGAGTA AAGAATTGGT CAAAACCAAT CAAAACCTCC	960
CCAAGTCCA TCATCAGAG TAAGACTACT AGGCCAGGA GACTTTTTCG ATAAAGAGAC	1020
AAAAAGTCTT TTTTCAAAAT CTAATTGACA AAGACATAGA AACTTGCAG TGTCACTAGA	1080
GCTACTAGCT GAACCAATG AAGAGATTTC TTGACCACTG CGAATGGTG CAGACCACT	1140
GCTGACGAAC GAAAATCAGG CATCTGTAAG ACCTGACTAA AAGGATTGGT CAGATAATTC	1200
ATCAAGATAT GAAAATTTGA TTGAATGGTT TCTGGTTTTA GATAGACTCG ATTGTTAAG	1260
TTTAGCCACT GAATCTCCAT AGGATAGAAA ATCCAAGCCA GATAAATGGT CAGAAAGGATG	1320
GAGAGGGAGA GGAGAAAGAG CATAGAGCCC CAAAAGATCA ATTTAGTTTT CATCAAAATC	1380
CCACTCCGCA AGGCTAGAAA CCACATGTGT CGGTGCGATT GGCAGGCCAG CTACTTCTTC	1440
TGCTTAGATA AAACCTGTG TCACCAAGAG CGTTGGAATG CCATTGTCAA TCCCAGCCCG	1500
ATATCAGTC AATAATTTGT CCCCAACCAT GATTAACTCT TCACGTTCOA AACCTAAGTG	1560
CTCAACGCC TTTGTCCATAA TGATGGCATT TGGTTTTCCG ATATAAACCG GCTTCACTCG	1620
TGTCCGTACT TCAAGCAGCG TAATCAGTGA GCCAGCACCT GGCAAAAGAC CGGPTTCCGT	1680
CGGGATGTTG AGGTCCAGAT TGGTTCCGAT AAAATGGGCA CCCTTTTGAA TAGCAAGAGT	1740